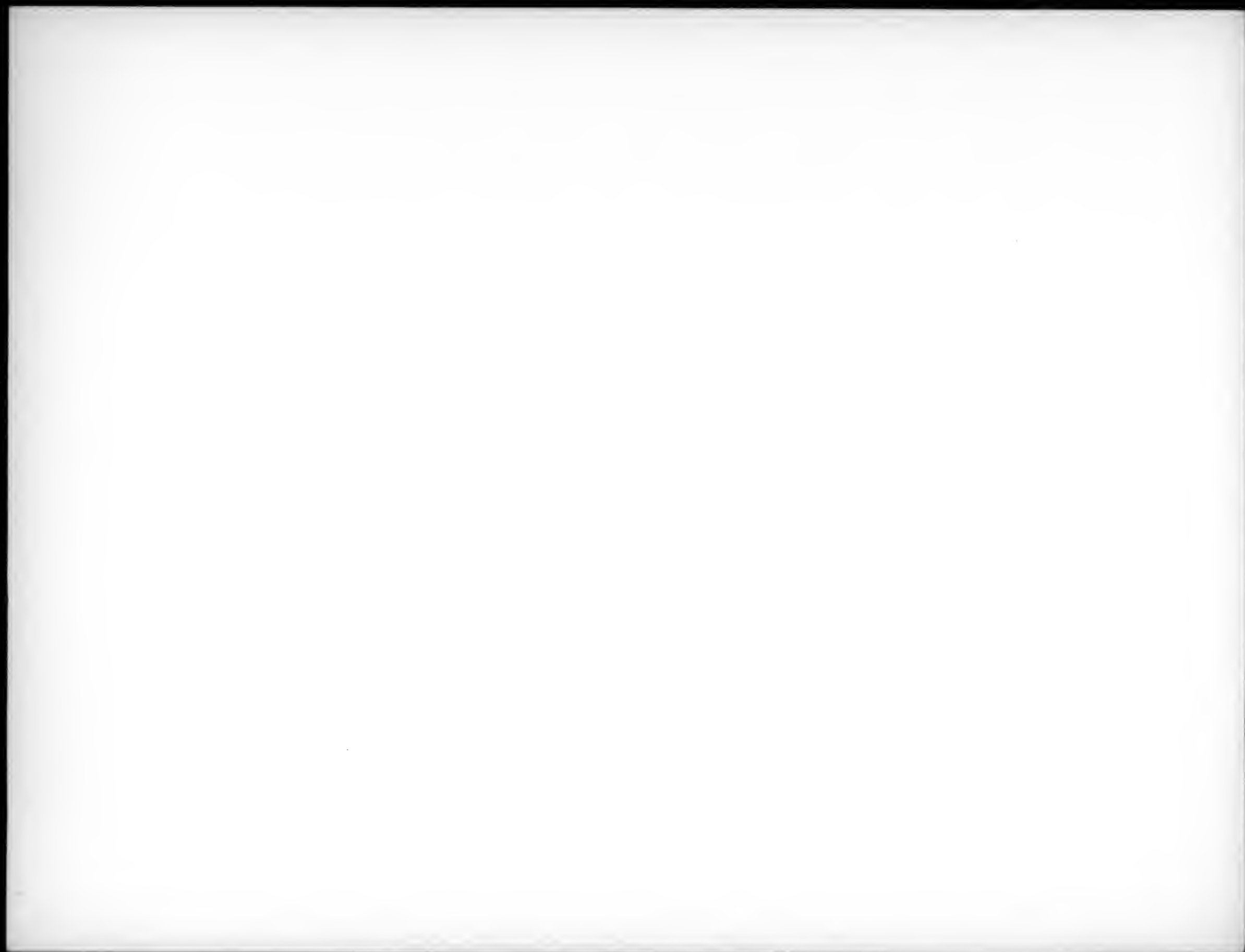


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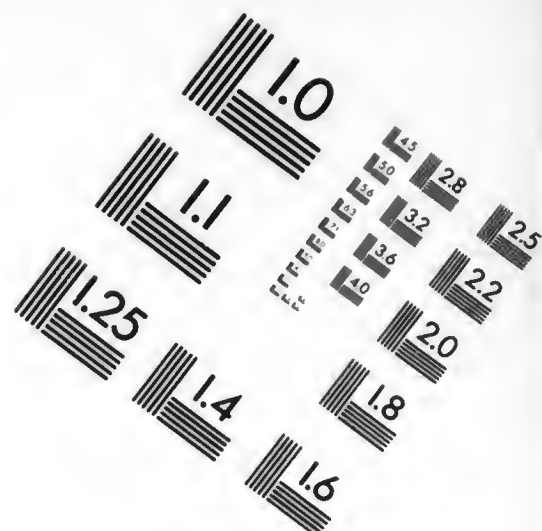
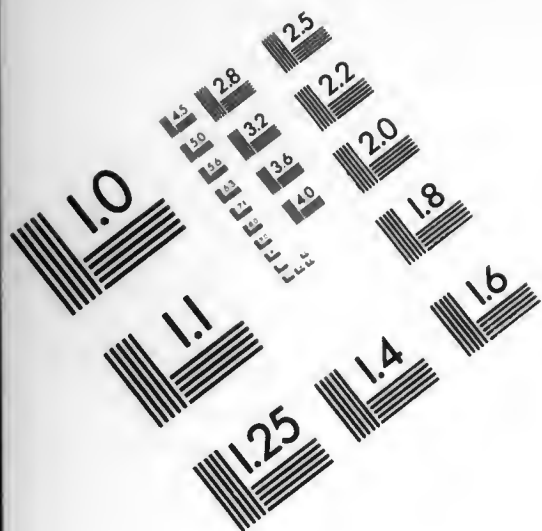
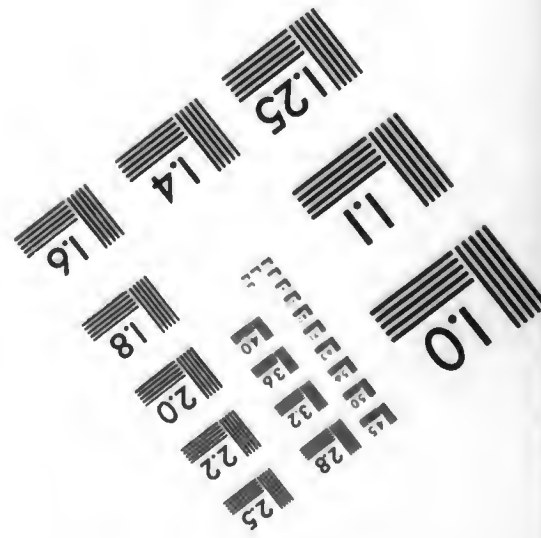
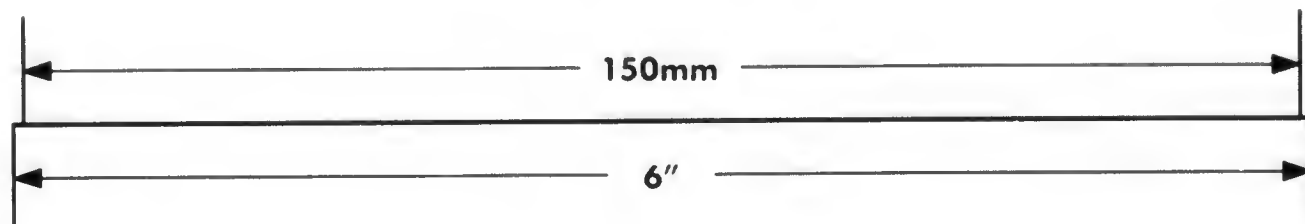
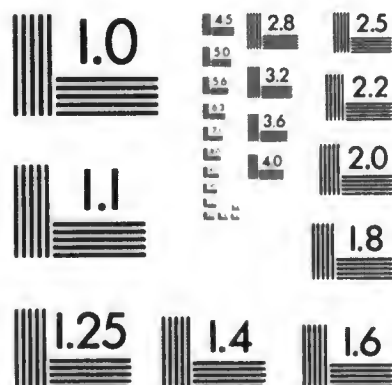


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Farm Facts and Fancies

By ALVA AGEE

CAN millions of us be educated to keep the production of food within profitable bounds? When I read the report of the chief of the U. S. Bureau of Agricultural Economics I feel that it is on the right track, but that track has no particular value to us unless we travel in it. A great industrial trust, like General Motors or United States Steel, has shrewd economists to guide it in respect to expansion. The farmers have the same shrewd service in the analysis of food production activity.

I have found the report heartening. Within my limited judgment there is evidence that the Bureau is going at its problem of determining the situation of production and marketing just as a big industrial trust would do. The government is doing for millions of independent, scattered farmers what a billion dollar trust can do for itself. We know where the farm stuff is coming from, what expansion is possible in each area and each line of production, and what are probable needs of this country and other ones.

I repeat that to a plain layman the activities of this national Bureau makes a strong appeal. The plans are comprehensive, and strike a man as practical.

What Advantage?

How much good can come from all this data and analysis so long as each individual is in the farming game for himself, and that is the way we want him to continue to be in. A trust can cut down on one line of production, shut down a plant when in its interest and meet needs as it foresees them. It uses the data of its economists. A loss at one point means a bigger gain at another. That isn't so in farming. If one farm cuts down operations, no other farm makes a contribution. The government may give us a true picture of farm production facilities and market demand, but millions of independent individuals, each one for himself, must go it alone, and take the chances.

Here Is the Trouble

The idealist may say what should be, but a farmer's interest for the coming year may run counter to the general interest. If the growers of a certain commodity are told by the economists that planting should be restricted, and it is restricted, the individual farmer reasons that the year may be the one to pay off some of his debt if he plants more than usual, while others are planting less.

You criticize him? Well, you have ground for that, but it is his debt and his farm and he is an individualist. Let's put the case more generously. He isn't sure about anything except that if he does not have stuff to sell the sheriff may do the selling, and there is the land, the teams and his will to work hard, and he drives ahead and lets theories and predictions go hang.

A farmer's immediate interest, and maybe long-time interest, isn't necessarily the same as the welfare of the crowd. He may push the farm to capacity to save himself when the general welfare might demand a ten per cent cut in acreage.

Spurring Production

Julius Barnes is President Hoover's chairman of the committee to get team-work out of all industries so that this Wall Street panic will not cause an industrial slump. He has pointed out to Chairman Legge, of the Federal Farm Board, that the loaning of money at a low rate to keep wheat off the market at this time in expectation of higher prices later on will encourage growers to increase acreage.

I am glad there are funds provided to hold the wheat if prices are to be higher, and all of us want the growers to be the ones who profit if there is

a real world shortage of wheat, as some good authorities believe, but Mr. Barnes states a disconcerting truth when he says that higher prices increase acreage, and there is danger in that. We know that an industrial trust would profit by any temporary scarcity but would not be led into doing what wheat growers will be doing.

Price is the regulator of production, and when it is good we pay no attention at all to data and analyses provided by our trained economists, but increase acreage. It is discouraging, and I doubt the statement of the man who shuts one eye like an owl and claims he sees clear through the matter.

Censure and Approval

Why are we not as quick to praise a public servant when he does what we regard as a right thing as we are to censure when he fails to do it? I am thinking of the round of applause due Chairman Legge and his board from price-control adherents when he announced loans on stored wheat nearly up to market value. The applause couldn't come from those who believe the action was unwise, but a great mass of farmers believe the Board should help keep wheat off the market, and Mr. Legge should be heartened by evidence of approval.

He has taken a sizable risk—a risk to himself, I mean—because if matters do not turn out well he will come in for a lot of criticism. All hinges on the demand Europe will make on the present stored supply in Canada and this country. Canada decided this year to hold wheat back and so has this country. Europe is content to use the supplies of the southern hemisphere and do no bidding up on price until necessity appears.

If the European importers are guessing wrong and we are guessing right, the Board's action will aid in putting scores of millions of dollars into American pockets. If we are wrong in our estimate of the amount of wheat Europe must have this season from America, there will be a different story.

Using the Board's Power

Personally, I am glad we are trying out this new power the Farm Board has been given. It looks like the year when there is more than usual chance of success in attempted price control. On the other hand, I carry in mind the fact that many of the keenest capitalists in the world buy and sell wheat in accordance with their judgment regarding supply and demand. Each one backs his own judgment with his cash, and all he tries to do is to guess right about future prices so that he can add to his fortune.

The market price today represents the summing up of their opinions. If more thought future prices would be higher, the price would go up at once because they would be wanting to buy more heavily than others wanted to sell. It would be the other way round if sentiment favored selling. Regardless of such expression, the Board says wheat will be higher, and it takes the risk of pretty general criticism if its judgment proves to be at fault.

Why should there not be as hearty praise right now from those who want price control attempted as there will be criticism if our surplus finally fails to move and chokes the market next year?

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Heedless Jason Tarbell

By FRANK K. RICH

CALEB PEASLEE, on his way home from the village store, had paused at Deacon Hyne's gate for a chat. As he placed the bundles which had burdened his arms in a row on the bench he seemed to miss something. He made a careful count and his face fell.

"I'm gittin' careless," he said regretfully. "While that red calico wa'n't the only thing my wife wanted me to git, you'd think it was if I sh'd go home without it. But I'm goin' to rest my laigs a minute first," he said, and sank upon the bench accordingly. "She tole me only yest'day," he went on, "that I was near as heedless as Jason Tarbell ever was, and I con- 'dricted her with some heat, I guess. But if I got home 'thout that calico she'll only say it all over again and this time I won't be able to say a word to her!"

"What about Jason?" the deacon asked.

"A lot of things about him," Caleb returned. "He was about the most thoughtless and heedless man that ever lived 'round here—he was a kind of by-word for it. But the thing she had in mind was one time he nailed up his barn so to keep a sheep out of his seed corn; I know by the way she talked that she was 'ludin' to that."

"What did she say?" the deacon inquired. Caleb laughed a little.

"She said," he acknowledged, "that if she caught me with a hammer and nails she'd feel it her duty to go count up the sheep, to be sure they was all at large; she said I was 'nough like Jason to make her want to take that precaution, for humane reasons."

Strange Doings

"Well,"—the deacon began. "Well," Caleb went on, "what she meant was one time I happened to go over to Jason's one morning early and found him goin' out to'rds the barn with a hammer in one hand and a box of good-sized nails in the other; so I travelled along with him, thinkin' to 'd'scharge my errand with him, whatever it was, and go off home about my business again.

"When we fetched up in front of the barn I was sort of 'sprised to see Jason sort over the nails and pick out ten or a dozen of the biggest of 'em and start to drive them right through the aidge of the door into the jamb of the doorway."

"What in tunket?"—I says; but he was makin' such a racket with the hammer I waited 'till he was through; and then he answered me, even if I hadn't finished the question.

"I'm f'gitful, and nobody knows it better'n I do myself," he says, 'and I've got my seed corn in there on the barn floor, all traced up pretty to carry to the fair next week; and after I show it there I'm plannin' to lug it off into the shed chamber where it'll

dry and be ready for seed another spring, if I'm spared to plant it."

Safety First

"Well,"—I says again, but he took the question out of my mouth again. "I've got one sheep," he says, "that's been p'sseded to git in where that corn is ever since I laid it out there. She goes in every time I leave the door open and I'm so f'gitful I don't always think to close it behind me. And for the reason that I'm goin' away all day, me and my wife both, over to the Parlin reunion, I'm goin' to fix this door so I won't be likely to go off and leave it open—and nobody else'll be able to open it whilst I'm gone. I figger, for once," he says, "that I've fixed things so's my f'gitfulness won't be a hurt to me!" And with that he took his hammer and nails back to the woodhouse again.

"Well," Caleb went on, "Jason and his wife went off to the reunion, same's they planned, and was gone all day; and I didn't give him another thought, more'n to think it must be unhandy to have to guard against a bad mem'ry the way he had to.

"Come evening, though, Jason come over to my place and asked me if I'd seen his black-faced sheep anywhere 'round durin' the day.

"She always comes up at night, when the rest of 'em do," he says, 'but tonight she didn't—so I'm a mite worried.' I tole him I hadn't seen her but I went along back to help him look for her.

"When did you see her last?" I wanted to know, and he said no longer back than that very mornin'." "She was here with the rest of 'em when I went to git the nails and hammer," he says.

Wasted Effort

"Just as we stood there wonderin' where it'd be best to look for her, we saw old lady Drake comin' 'cross the road. You know she used to live right opp'site Jason's, but, spendin' most of her time in the kitchen, away from the road, she hadn't seen us huntin' at first.

"Oh, Jason," she pipes up, 'there's a sheep in your barn that's been makin' an awful to-do part of the time today. I tried to open the door to see if it was hurt, or anything; but the door was nailed up so'st I couldn't budge it. I hope there ain't nothin' wrong with the animal,' she says.

"I took one look at Jason," Caleb said, "and then I says, 'I guess I might's well be gittin' along home.' I says, 'And Jason looked up, and says he, 'Yes—and I guess I might's well give up any idea of showin' that seed-corn at the fair!' Nail up that door," he says, bitter-like at himself, 'to keep a sheep out—and be heedless 'nough to nail the sheep in there! I'm goin' to quit tryin' to be careful from now on," says he—'sif he meant it!"

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NESHAMINY GARDENS

By R. P. KESTER

LAST week I started to explain to my politically-minded friend what a sure-enough, country log-rolling was like. I used up my space in telling about the burning of a "clearing," after which comes the log-rolling frolic.

After the "clearing" was burned, and a considerable amount of work had been done in piling and burning brush which had escaped the big fire, the next job was to roll the logs into heaps for burning. And logs is the right term. I have seen better lumber put into log heaps than much that now goes to saw mills. The "down" trees—trees which had fallen in past years, but in which there was some good lumber, much of it the best of pine—were sawed into log lengths ready to pile.

Of course, not every farmer made a "frolic" to get the logs piled, but it was done frequently, especially if the clearing contained five to ten acres. Men were "invited" by personal invitation. Usually, four teams and four crews made up a rolling bee, each team requiring three men besides the driver. The wives of the married men were invited to help the "women folks" prepare the meals, and maybe make a quilt. Strange as it may seem, there were mostly more people attended a rolling frolic than were actually needed. Some would come without an invitation, showing something of the old-time eagerness of the people to get together, and also their willingness to help a neighbor.

The men and teams arrived around seven o'clock in the morning; a man would have felt guilty in coming any later. A captain was appointed to head each crew, and they chose the members of their crews much as boys choose up to play ball. Then the courses across the clearing were staked off, the stakes having been prepared by the farmer previously. A course extended from one side of the burned track to the opposite side, and was as wide as it was convenient to haul.

One of the men acted as chain man, that is, he followed the team and hitched to the logs and unhitched when they were drawn to the pile. The other men, armed with canthooks and "hand-spikes" rolled the logs up onto the piles on skids. The piles were made as high as it was practical to roll up the logs. The small stuff—limbs, trash, etc., was placed in the crevices and on top of the log heap.

Very often contests were waged between the crews to see who would finish their course across the clearing first. These were waged with the vim and effort one sees in a game of baseball or football. Men worked at top speed, and woe be it to the one who was caught shirking. It is surprising how much hard labor was accomplished at a frolic of this kind, and all done in the best of humor and good cheer.

And such meals, and such appetites! After an hour spent at eating, the crews went to work again and worked till quitting time, or until the job was done. In most instances there was a party at night, sometimes a play-party, but more often a dance depending, of course, on who was giving it. Be it remembered that in the olden days there were two kinds of homes—those in which dances might be held, and those where "the old folks" did not permit it. But there was no hard feelings about it. Everybody knew beforehand which way it was, and each respected the customs of the homes.

I never attended a rolling frolic at which liquor was used, although it

was done in some instances. I have heard my father say that it was an invariable custom in his boyhood. Any man who did not provide drinks would have been out of luck had he tried to have a rolling bee. But mother always made up a drink composed of a slightly sweetened water, to which a little vinegar and a pinch of ginger were added. This was thought to be good to "cut" the black dust from the men's throats.

A log-rolling was perhaps the hardest and dirtiest among the many kinds of country "frolics." Others, such as corn-huskings, barn-raising, apple-parings, etc., were more popular but not better attended. These things were a part of pioneer life, and were necessary to furnish occasions for social mingling. In other words, the people needed excuses to come together, and it was not popular to take time off and "waste" it by doing nothing. So they made their work an occasion and an excuse.

I am well aware that this recital is far afield from my task of writing of our doings at Neshaminy gardens. Yet, I am not sure but what it is a good thing to revert to the past now and then, and compare life today with that of our fathers and mothers. My life is a sort of connecting link between the time which was almost primitive in my neighborhood, and these days—the best days humanity has ever seen.

Friendly Talks By Edgar L. Vincent

I KNOW a little black and white dog that sits out by the side of the road every school-day afternoon, waiting for a boy. When that lad wheels around the bend of the road, away bounds Plato to meet his young master, with every sign of love in yelp and bound. If there ever were two pals, this boy and his dog are pals.

A horse I used to know had that same faithful spirit. His master was a country doctor. Not a night so dark, not a storm so severe that Billy did not bring his master home through shadows all safe and sound. One night on a slippery road the doctor's "gig" began to slip on a steep hill road. The doctor did not know where he was going to land, but that something was going to happen he was sure. When the two-wheeled rig came to a standstill, the doctor got out and found that horse, rig and all were headed back up the hill, and there stood Billy, bracing himself to keep from being carried away down the awful road. The old true-hearted friend had saved the doctor's life once more.

One of the queerest things in the world is the way we sometimes treat these friends of the faithful heart. First and last they come in for a great deal of misuse; and it is not right. Nothing proves more clearly what sort of a heart a man has than the way he cares for and uses his horses, cows, dogs and cats. And let me tell you this: I believe every blow we put on one of these creatures the worse men we are inside of us. It never makes a man better to get mad and tear around at any living being.

But it pays well to be kind, kind to men folks, kind to boys and girls and kind to all the creatures God has made and given us for our best good. Kindness lifts you and me up a little bit toward the best there is "Be ye also kind."

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THE BOARD AND THE LAW

IN all our discussion of the great marketing experiment now under way let us remember that the Federal Farm Board is merely the agency by which the Farm Marketing Act is administered. The Board is not responsible for the law or the fundamental defects thereof and does not deserve criticism for what it does according to the provisions of the law. Yet the Board has been denounced, and will be, for doing precisely what it must do if it observes the letter and the spirit of the law. We have freely criticized the law and pointed out its fallacies, but such comment does not imply and should not be taken as criticism of the Board.

INTEREST RATES

LAST week we referred to the interest rates to be charged borrowers of the revolving fund administered by the Federal Farm Board. In reply to inquiries which we passed along to the Board it says what we have already stated as to the terms on which the cooperative association may borrow. As to what rate of interest the individual borrower must pay the Board says: "The rate charged by the association to its members is a matter for them jointly to determine, and in most cases is sufficiently higher than that paid by the association to take care of expenses in connection with the administration of the loan and to build up a reserve to take care of losses that may be incurred in some instances." So the associations fix the rate, each association for and by its own members, and the Federal Farm Board has nothing to do with it. The wisdom of such a policy may be determined only by experience.

A STARTING POINT

THE Interstate Commerce Commission has laid before the public its plan to unite in nineteen major transportation systems the many railroads now operating in this country. The chief immediate advantage of this action is that it gives the public something definite to consider. It is only the first of many steps that must be taken toward the goal of better railroad service for the whole country. In this region one of the problems ahead is whether four or five great systems are best, and if five how the fifth can be established when so much of it is now owned by other members of the group. The purpose of the proposed consolidations is sound, from the standpoint of service to the public; for its purpose is to extend all regions the service of competent transportation companies and to give to all regions the terminal facilities and advantages now available to only a part of them. The new plan is certain to arouse much opposition. Any plan would, for no

movement of such magnitude is likely to be satisfactory to all or even to be correct in all particulars at the start. But it does give us a starting-point, a basis for discussion, and probably it would be a mistake to regard it as much more than that at present.

THE OPEN MARKET

ACCORDING to the President of the New Orleans Cotton Exchange 160 measures affecting trading in cotton have been introduced in Congress. They range from provisions for further regulation of exchange trading to total abolition of it, and all of them "exercise a detrimental influence on the market." We have no financial interest in cotton nor have our readers, but we should all have sufficient interest in marketing to understand that the lack of trading in any commodity is worse for the producer than any amount of speculation could be. And we should learn, before we are compelled to learn by costly experience, that whatever interferes with the open market or freedom of trading is contrary to the welfare of the producer. The open market is the best commercial friend of the farmer.

AN INTERESTING LETTER

ON another page of this issue Daniel Dean, a leader among potato growers of this country, brings before us the possibility of trading in potato contracts for future delivery and the advantages of such a market. In justice to Mr. Dean it should be said that his letter is not an attempt to discuss the question thoroughly, for it was not intended for publication. But his views are of interest as indicating the tendency of modern marketing, which has in recent years created exchanges that have established future trading in hides, coffee, cocoa, rubber, silk, burlap, butter and eggs. In all cases this trading was provided for the purpose of reducing the uncertainty and risk of those concerned in business. Those interested in these commodities have acted on the principle that speculators might be helpful in assuming risks and business men might be helped by price insurance, so they provided the opportunity for both.

ANOTHER FUTILE WARNING

IN the fall of 1928 the Bureau of Agricultural Economics warned producers against expanding the area of winter wheat. They didn't heed the official warning but sowed many more acres than in 1927. Last September the Bureau issued another statement headed "Farmers warned against seeding too large winter wheat acreages." Now the Bureau reports that farmers have sown more acres than in 1928, the increase amounting to two per cent. The Bureau does not appear to be getting anywhere with its warnings and probably this is as it should be. For the experience of 1929 shows that if farmers had heeded the Bureau's advice they might have lost money and the country might have lost too. The best adjuster of crop areas is not some board or bureau at Washington with ample facilities for propaganda. It is the collective judgment of producers based on their experience. They are not likely to heed anything else—and probably should not.

BUSINESS SHIFTS

THE late W. W. Hunter told us that when he was a big boy he went with his father to consult another man about what trade he should learn. The conclusion of the elders was that people would always need shoes, so he was advised to become a shoemaker. They could not foresee that this country's shoes would be made in factories. An old man told us that he became a millwright as the result of similar counsel, based on the assumption that mills and men to construct

them and keep them in order would always be needed. So they will, but comparatively few since a few large mills have supplanted thousands of small ones. The trade of tanner has disappeared in the same way and for the same reason. We mention these things merely to show that the business changes of which we hear so much are not a recent development. Such changes have been going on right along, in business and in agriculture as well, and some of them are so remote that the present generation has not even heard of them. Change is about the only certainty in this world.

NOT ECONOMY BUT CONTROL

IN a letter to Hon. William Butterworth, President of the Chamber of Commerce of the United States, Alexander Legge, Chairman of the Federal Farm Board, makes a few significant statements which we take as official utterance of the Board. Mr. Legge says:

"Unless we can work out a different system of marketing which goes far beyond the question of saving a fraction of a cent per bushel on grain, a few cents per bale on cotton, or a few cents per head on livestock, as compared to the present system, there would be little hope of progress in the line of putting agriculture on an equality with other industries, for the simple reason that if all of these operating costs were added to the price the farmer gets for his profit it would make but little difference in the return to the grower. On the other hand, if gradual marketing of what the farmer has to sell through a longer period instead of within a few weeks, as is now the prevailing practice, can be brought about, it may be possible to make a material improvement in the returns to the producer. I think you will agree with me that such a change can only be brought about by the producer himself, as the private trader could not hope to have any measurable influence on this phase of the marketing process. To follow it to its logical conclusion this would result in adjusting production to the reasonable consumptive demand or requirements. In other words, as the Agricultural Marketing Act puts it 'control surplus at its source,' and after all, this is the fundamental difference between agriculture and other industries. It is a condition which we can only hope to correct by collective action on the part of the agricultural producers."

The above and other expressions of the Board indicate clearly that control rather than economy is the main object—control of surplus at the source, control of marketing, and any other control possible.

THE DEER PROBLEM

A PRELIMINARY report by the Board of Game Commissioners indicates that during the twelve-day season beginning December 1st 22,394 buck deer and 12 elk were killed in Pennsylvania. During the bear season, which opened November 1st, 408 bears were killed. All this in a state which had so little game twenty years ago that even the sight of a deer was an event worth reporting.

Along with the increase of deer and bear have come several problems and one of them is an agricultural problem. These must all be solved by experience, since there is no other guide. And the experience with an open season for does has been valuable from the standpoint of agriculture. The doe season of 1928 was not an ideal measure but it did a lot of good. So far as we can ascertain deer did less damage to crops last summer than in any recent year. This not because so many were killed during the doe season of 1928 but because the doe became a wild animal again after being hunted one year, and imbued with the fear of man did not venture so often to damage crops. The lesson is clear enough, we think, to serve as a guide for future action. An occasional doe season is essential for the protection of agriculture. And it will result not only in more deer for the hunter but better trophies. Next time a doe season is proposed we hope to see all interests in favor of it, for after the experience of 1928 the next doe season will be somewhat different.

New Jersey Farm Comment

"MORE persons are killed each year by bulls than by wild animals." That sign in a store window caught my eye as I passed along a busy city street one day last week. In this show window reclined a small Holstein bull calf; in another window two monkeys were carefully inspecting each other for fleas.

As I stepped inside I discovered that a small zoo had been brought to the store to attract Christmas shoppers. "Boo-boo, the smallest bull in the world" claimed the same share of attention as the monkeys, the parrots and other birds and animals from the tropics. To many city children "Boo-boo" might have been a ferocious animal from the jungles, but most of us would recognize him as just a wobbly-legged baby calf which might be some farm child's pet.

A wobbly-legged pet—this is true for a while, but later we realize the truth of the first statement that "more persons are killed each year by bulls than by wild animals." Nearly every week Pennsylvania Farmer reports a death or injury as the result of an attack by an angry bull. Trainers of wild animals soon learn the lesson of caution, while farmers still continue to treat treacherous bulls as family pets. And it often results in a death in that family.

A RECENT bulletin "A Study of Spinach Varieties with Special Reference to their Canning Qualities," prepared by H. B. Farley of the Maryland Experiment Station, will be of interest to many truck growers and canners.

Thirteen varieties of spinach were studied and are classified according to appearance, rate of growth, disease resistance and hardiness.

Some interesting facts brought out by Mr. Farley are: The Virginia Savoy variety was found to be not only the most rapid grower and quickest seeder but it gave the best yield in the fall because of its blight resisting qualities. In short, Virginia Savoy was recommended for the fall crop although in the absence of blight, Viroflay, a very fast growing and smooth leaved sort, is more desirable for canning than the Virginia Savoy. Blight does not occur every fall but the growing of the Virginia variety is good insurance against it if it should appear.

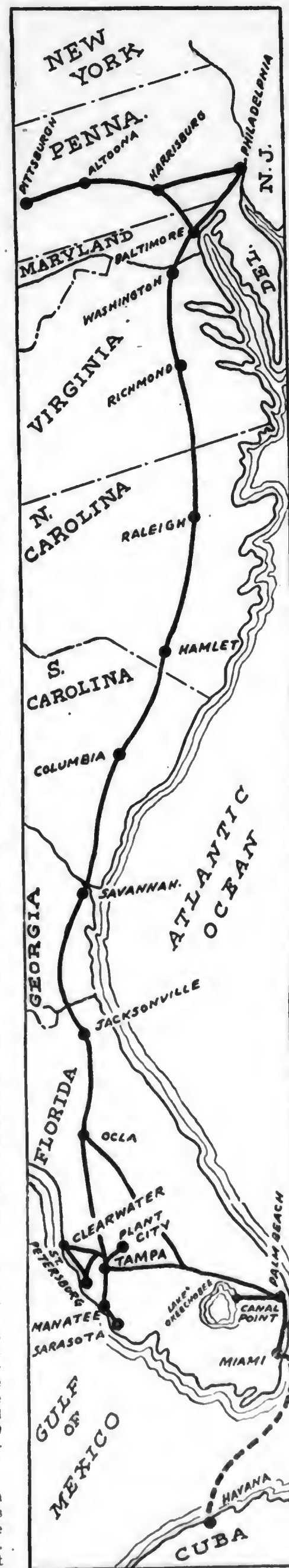
When quality, together with yield is considered, Viroflay, Thick Leaved Round, and King of Denmark are recommended for the overwintered and spring crops. In his experiments Mr. Farley found that all of the spinach canned from the overwintered and spring crops possessed good flavor.

MORE Maryland poultrymen are requesting blood testing and certification for their poultry flocks. A report of the Maryland Extension Service shows that while there were only 951 growers in 1928 who offered birds for this work, this year the number more than doubled, 3,250 birds receiving the blood test. Last year 17,000 birds were submitted for certification, of which 12,000 passed the examination, while this past year 15,323 out of the 21,000 birds submitted passed the requirements.

THE acreage of alfalfa grown by New Jersey farmers has increased from 194 acres in 1900 to 21,000 acres during this past year.

The New Jersey Alfalfa Association has been very active in bringing about this change. The association was organized in 1917, and they began the distribution to members of high grade alfalfa seed of known and improved origin. Since that time nearly 20,000 pounds of alfalfa seed have been distributed by them.

AN additional two tons an acre in yield of canhouse tomatoes has been the result of field plantings done in New Jersey in May instead of June. Records taken by the Experiment



Station on 4,710 acres show that plants set in May yielded 7.35 tons to the acre, whereas June set plants averaged only 5.3 tons to the acre.

That farmers are rapidly accepting the recommendations for earlier field plantings is found in the sales record of one large plant grower. In 1928, the season before the campaign for May planting was inaugurated, he sold 12,000,000 plants before June 1st and 8,500,000 after that date. This year farmers showed a decided preference for earlier plants. Nearly 30,000,000 plants were sold before June 1st, while sales after that date dropped to only 4,750,000.

FOUR new strawberry varieties worthy of trial plantings in New Jersey have been pointed out by J. H. Clark, of the Experiment Station. These are the Ridgely, Boquet, Bliss and Blakemore.

The Blakemore, which was originated by the U. S. Department of Agriculture, has been observed only one season in New Jersey but looks very promising. This berry, while best adapted to the canning and preserving trade, is expected to make a desirable early market berry. Its flesh is very firm and the color is attractive.

Boquet and Bliss originated at the New York Experiment Station and like the Ridgely are proving worthy of more trials in New Jersey.

ONE of the surest methods for increasing the profits made from a dairy herd is to use a pure-bred bull, raise the heifers from the best cows and in this way increase the ability of the herd to produce more milk and butterfat, according to J. A. Conover, dairy specialist for the University of Maryland Extension Service, who further declares that a survey made recently of one of Maryland's counties showed that there were only 130 pure-bred bulls in use although six hundred milk shippers were listed in the county.

Mr. Conover declares that herd improvement records show that in herds averaging two hundred pounds of butterfat or less almost any purebred bull will increase production. However, as the production of the herd increases, fewer bulls will be found that will increase production in their daughters over the daughter's dams. Hence not more than forty per cent of the bulls in use in the herds of the herd improvement members have the ability to increase production in their daughters when the daughters come from dams making three hundred and fifty pounds of butterfat.

A dairyman should, therefore, exercise great care in selecting a bull. He should know something about the average production of his herd, the lowest producers and the highest. Having

determined this, he is in much better position to make a wise selection of the bull of the breed that he prefers.

He should select an aged bull, of good type and conformation, whose daughters have made records that are higher than those of the cows in his own herd. He should select a bull whose nearest dams have made high records, or whose sisters have made such records and it would be wise to look into the record of the dam's entire family.

On to the Far South

THE sketch on this page illustrates the route which will be taken by the Pennsylvania Farmer winter vacation tour for farmers. The two main starting points are Philadelphia and Harrisburg. The special cars from these places will meet at Washington, D. C., and from here the whole party will journey together to Jacksonville, Florida, gateway to the far South and beginning of a series of sightseeing trips and other things of interest which will entertain the travelers throughout their stay in Florida and Cuba.

As will be noted by the map the tour goes through the central part of the state and takes in the well-known places on both east and west coast. In former issues we have mentioned some of the things which will be seen, but a clear conception of the delights of Florida in winter can be obtained only by seeing it for oneself. The special reduced rates which we are able to offer make it possible for a large number of farm folks in this territory to see Florida this year for themselves. That they will do this is evident from the number of replies we have received following the announcement of the trip.

Reservations are now coming in fast. We do not want to deny any one who wants to make this trip the privilege of doing so, but the number which can be taken of course has a limit and the reservations are made in the order requests reach us. We therefore suggest that you do not delay any longer, but send in your reservations today, using the coupon at the bottom of this page, which is supplied for your convenience.

We have a number of requests for lower berths, and hope to be able to take care of every one of them. However, our special rate is based on the sale of sections, that is upper and lower berth, so we are unable to promise lower berths before the corresponding uppers are taken. In discussing this matter with railroad representatives we are informed that porters will be on duty at all times, ready with steps to help any one out of an upper, so that as far as convenience and comfort goes the uppers will be as desirable as the lowers. Travelers also know that the upper berth has certain advantages over the lower, such as better ventilation and easier sleeping quality. Two small persons can occupy a lower berth and have the upper vacant for storing their clothes and other belongings, and thus solve the problem for themselves very handsily. Elderly people will of course be given special consideration in assignment of spaces.

Tour Manager,
Pennsylvania Farmer,
7301 Penn Avenue,
Pittsburgh, Penna.

Enclosed find deposit of \$20 per person for reservation on the Florida and Cuba tour. Balance, or \$164.50 per person, will be paid before February 1, 1930. (Remittance should be made by check or money order—not cash).

Name
Address

I shall join the tour at (mark X) Harrisburg () Philadelphia ()

INSTRUCTION in vocational agriculture in the United States can be vitalized by creating interest in the farmstead as a future home. The rural settings of many farm homes lend themselves to beautification and improvement at low cost. Making farm homes more attractive and comfortable is one of the aims of the instruction in vocational agriculture. The Department of Public Instruction is encouraging students of vocational agriculture in Pennsylvania to devote some of their attention to the esthetic side of their farm life. For this reason, prizes in the form of gold, silver and bronze medals are offered to the three boys doing outstanding work in the home improvement contest which has been conducted annually for the past five years.

Charles Ballard, a student in the Troy High School, who won the gold medal for conducting the best home improvement project in the state of Pennsylvania one year, gives his experience and his conception of this work as follows:

"I have always liked carpentry work; so since our home needed some improvements, I chose to carry this type of project. The farm was bought by my great grandfather Hooker, who came here from Connecticut when my grandfather was only eight months old. They first lived in a log cabin just north of where our house stands today. They gradually cleared the land of timber which they sawed in their own mill and built our present home, where grandfather lived till his death at ninety years of age. Because I love our home, I want to learn all I can about agriculture so I can take good care of it and keep making improvements as long as I live.

"What I consider as one of the most important steps in my project was the building of the retaining wall along the road in front of the house and building two sets of steps at the entrance of the house. The lawn has been graded in behind the wall and it is surprising to see what a great difference it makes. The old ice house, which stood at one side of our house and obstructed a beautiful view from our big kitchen window as well as detracting from the general outside appearance, was razed and a new ice house built back out of sight. Another building was moved from beside the old ice house and taken down across the road and converted into a two-car garage.

"The old shop was torn down completely and the cornerb was moved across the road behind the barns. The woodwork inside the main house as well as the outside of some of the other buildings was painted. The shade trees were pruned and the old and diseased ones removed, while special care was taken to clear the trees that were obstructing the wonderful views that are possible from different windows in the house. The barns came in for their share of improvement when the roofs were shingled and the milk house was given new siding and some paint.

"Some of the things that we have yet to do are: finish grading the lawn and build a lattice fence and a gate with an arch over it between the lawn and the garden. Also in the spring we will landscape the grounds, plant a hedge between the lawn and orchard and get our flower garden started. In addition to this, some of the buildings that have been built or moved will have to be painted.

"Home Improvement has not been considered among the project lists until recent years. It has not been taken up extensively yet but it should be carried out to a much greater extent all over the United States. Attractive, well-kept homes are coming to mean more and more both to the farmer and business man.

"I helped lay the retaining wall and laid nearly all of the wall for the new ice house alone. Besides that I have learned to paint. Then, what is more important, I have obtained a good idea of just how such a project should be carried out and have had the necessary practice in actually planning, managing and keeping a complete record of work done, amount of labor and expense.

"I am glad I could get this training in school and consider myself more than fortunate in having the help and teaching of one of the finest agricultural professors in the state. Not only will this training help me to take care of and improve my home but I will try to make the community in which I live better and will aid to the best of my ability in arousing the interest of other boys to learn to love agriculture."

With the assistance of Mr. L. P. Guillaume, teacher of agriculture at

For the Home Beautiful

By H. C. FETTEROLF

Troy, Charles has figured the improvements that he has made in the farmstead to be approximately \$1,000. Some day Charles expects to become the proud owner of this old farmstead which has been in the family for several generations.

A Florida Farmer's Views

By CHAS. F. LEACH

ONE of the great mercies I am thankful for today is that the editor of one farm paper, at least, has got some real common sense and the ability to see the fallacy of this wonderful plan of our great and good President to cure the alleged farm surplus evil by lending vast sums of money to the surplus producers to encourage them to increase these surplus farm crops. To call this relief for the farmers is ridiculous, for real farmers can never lay their hands on a cent of this charity money unless they produce something already overproduced and can join a very large coopera-



Shrubbery adds to the beauty of any home.

tive society, which is quite impossible for any farmer who is wise enough not to spend his time raising something the world does not need or something in excess of the capacity of the world to consume.

In south Florida the fruit and winter vegetable growers already produce more than can be consumed in the North and could produce all the winter vegetables the entire Northern Hemisphere could eat. They have large cooperative organizations and can get this cheap government money to increase their plantings of surplus crops.

They cannot and do not try to produce anything for the people of Florida to eat eight months in the year. South Florida produces and ships north every year \$100,000,000 worth of winter vegetables and fruit. Then we turn around and buy in the North \$127,000,000 worth of food to feed ourselves. We buy in spring, summer and fall about \$12,000,000 worth of fresh vegetables from the North; yet in middle north Florida we can grow to perfection, in spring, summer and fall, every vegetable ever grown in the summer in any part of America.

Without any aid from the government—or any one else—I am growing 24 kinds of vegetables in commercial quantities and selling it all, by my lonesome, at very profitable prices right here in Florida. But there is not another grower of summer vegetables (commercially) within 100 miles



A view of the retaining wall and shade trees.

of me and probably there are not 50 vegetable growers between Jacksonville and Pensacola.

It is obvious this production of summer vegetables for consumption by Florida people is an industry that should be encouraged if any industry should be subsidized by the government. But although I personally need no help or cheap charity money, tell me how I am to form a cooperative organization that the Farm Board will consider worth while or to which it will lend any money. Tell me how I can get real truck growers here to take advantage of my pioneering demonstrations. The natives are cotton farmers.

Mr. Hoover devoted one short paragraph in his farm relief message that contained the only idea that I think should be considered. No one paid the slightest attention to it. I cannot quote that paragraph accurately, but as near as I can remember Mr. Hoover said that one of the great drawbacks to prosperous agriculture is the unequal distribution of farmers.

Broadly speaking, there are no real farmers in the lower South and very few in the upper South. Cotton growers are not farmers. They don't know anything about real farming, have no farm ideals and do not live or eat like real farmers. It is no exaggeration to say that ninety per cent of the cotton growers of the South are undernourished and a very large percentage are suffering from some form of semi or complete starvation. They would resent this statement simply because they don't know what ails them. Pellagra in some form is a universal disease in the South and pellagra is nothing but starvation.

I have been one of the advocates of the so-called Southern Reclamation Projects to which you have been strongly opposed. But, Mr. Bayard, you don't understand this problem. We have no thought of producing anything to sell in the North, nor for export. On the contrary we want to wean the South from producing so much low-grade cotton and induce it to produce food to feed itself and end this terrible condition of semi or complete starvation.

Cherokee Farms was established and has been operated for eleven years for this sole purpose. We have set an example that at last is being followed in our small area in some lines of farming. I have never drawn a salary and my living expenses are paid from other income. The other stockholders have never had a dividend and never expect one. The farm is not run for personal profit, but it would fail as a demonstration if we made none. However, every cent of profit is spent to spread the gospel of real farming by real farmers and our success has been gratifying. But one man on one small farm is lost in this semi-wilderness where the population is being rapidly reduced by starvation and emigration.

The same conditions in Russia or China would bring millions of relief money from the well-fed people of the North. Even the wheat growers ship starving Russians wheat by the shipload but will fight any effort made to induce southern people to raise food for themselves to eat.

We who are backing the so-called Southern Reclamation Projects simply want a few farming communities—of real farmers—established in the South and financed by the government to do the same work and set the same example that Cherokee Farms has been doing. We do not want to drain or irrigate a single acre. It is not necessary or desirable to clear any new land, as there are many millions of acres of old cotton plantations already cleared that are now lying unused and practically abandoned from which the population has been driven by starvation because they did not know how to raise their own food.

There is opposition to our project and aspirations in the North by those sections that have been producing the food heretofore consumed by the people of the South. They say that if we produce our own food their markets for meat, corn, eggs, hay, poultry, milk, butter and vegetables will be restricted. Laying aside the inhuman selfishness of this argument it is a fallacy because the southern outlet for northern farm products is rapidly vanishing; for millions of consumers are leaving the South every year starved out.

I did not intend to write you anything but a complimentary letter on your comprehension of farm relief (?), but being full of farm relief I have not been able to restrain myself so air my views.

Power on Penn'a Farms

By TUDOR J. CHARLES

IN ten years, from 1918 to 1928, the Pennsylvania farm population declined from 30 per cent of the total to less than ten per cent. Yet Pennsylvania farmers produced approximately as much in 1928 as they did ten years earlier, demonstrating that one man is able to produce three times as much as he did at the close of the World War. It is no mere coincidence that in the same period the number of farm tractors in the state has increased from 5,000 to some 35,000.

Prof. R. U. Blasingame of the Agricultural Engineering Department of the Pennsylvania State College predicts that within the next decade agricultural advancement will be speeded up to an even greater extent, and he foresees in the not distant future the total mechanization of eastern agriculture.

One thing which farmers are realizing, as they turn to power farming, is that low power costs come from putting to profitable use as many hours of available power as possible. The tractor should replace as much potential horse power as it is capable of supplanting, for with each hour of use the average hourly cost is reduced, due to the fact that fixed charges of interest, depreciation, housing, etc., remain practically stationary regardless of time used. Since these charges amount to over 50 per cent of the total, their reduction on the hour basis is desired.

Pennsylvania farmers are making their tractors pay by using them to fill silos, thresh, shell corn and do other belt work, while at the same time they depend on them to do the greater part, or in some cases, all of the field work.

This wide adaptation of power is due primarily, in the East at least, to development of the versatile general-purpose tractor. When one man can plant two or more rows of potatoes, or three or four rows of corn in one trip through the field, then substitute a cultivating attachment and weed from two to four rows at a time, he can reduce man labor materially. Figuring the greater speed of the tractor, labor is cut practically in half.

Tests at State College have determined these facts: For cultivating corn with a two-row power outfit, the man-hours per acre are less than half those required when common practices are followed and single row machines used. In potato cultivation slightly more than half as many man-hours are necessary for a given acreage.

When we consider that mechanical power will reduce labor by about half, or double the speed with which work can be done, it follows that it will cut costs to a minimum only when it is allowed to operate close to capacity. This is possible by increasing the acreage, or reducing horse power.

Farmers have found one thing—they can depend on their machines to give constant and steady service, and work overtime day after day as well. Long hours and little rest have no effect on a tractor's constitution.

New tools for general-purpose tractors which



Power sprayers do their work quickly and well.



This farmer is using a tractor to cultivate corn shoulder high.

will do practically all farm work are going to speed up adoption of mechanical power. Since potatoes are a major crop in Pennsylvania, and growers in this state have been leaders in use of improved methods, we can look first at some of the tools which spell "spud success."

Soil preparation is a simple matter of disk-ing, harrowing and pulverizing. Planting time no longer sees hand dropping, but automatic or semi-automatic machines in one and two-row sizes. The last year has seen announcement of a three-row automatic machine.

In addition, better spacing and covering apparatus is used than in former years. One idea is to cover the seed shallow in the trench, with the advantage in mind of allowing more warmth from the sun to penetrate the seedbed.

Fertilizing attachments are available for planters and are widely used. State colleges, equipment manufacturers and other interested groups are working together to improve fertilizing machinery and step over or around factors that interfere with application of the commercial product.

the surface and leave them in a trail along the row, but also drop them in piles. Still another development is a combined digger and sacker which elevates the spuds over a shaker chain, and then drops them into bags. Five men are necessary for complete operation of such a machine.

Corn production can likewise be completely mechanized. Tests show power methods to be cheaper in all operations except planting, where the two-row planter when drawn by two horses cost somewhat less per acre. Use of a three- or four-row tractor hookup might change the situation since power cost was the factor which made tractor planting more expensive.

Probably the latest power development in haying equipment is the wide cut tractor mower which is carried on the drawbar and operates from power take-off. The practice of curing hay in the windrow has also helped to adapt power to haying, for the side-delivery rake may be drawn behind the mower, eliminating necessity of an extra team.

Although this practice has been followed by quite a number of farmers the past few years, a few words of explanation may be in order. The left-hand rake as it follows the mower turns the leafy part of the plants toward the center of the windrow. The stemmy ends are exposed where direct sunlight can dry them quickly. The leaves dry just as quickly for the row is light and airy. This plan demands less time all around, and damaging rains are often avoided. In case rain does fall, however, the windrow may be turned with the rake. Little deterioration is noticed if this is done.

The experiment station tests again showed considerable advantage to tractor power for grain growing. In all operations, including plowing, pulverizing, harrowing and harvesting, there was a saving of 19 per cent in power, labor and machinery cost. This average included acre costs of plowing on extremely stony soil, as well as moderately stony fields and those with few solid rocks. One can see that increased acreage would result in lower costs, as the figures were based on like areas.

We have mentioned briefly two main items in lowering production costs. One is belt work, the other larger acreages—both mean greater hours of use. Another, which means the same, is diversification.

While some sections of the country must stand pat with one or two crops, Pennsylvanians with their diversified farms can rotate both their crops and their time. They are doing this to a large extent and it is good business.

To Clean Area of Abortion

Dairy leaders in Winslow, Washington and Clover townships of Jefferson county, Pa., are making determined efforts to clean up these areas of contagious abortion. The half way mark has already been passed and the accomplishment is clearly in sight. When the campaign is completed, it will place this area in the very forefront for freedom from both tuberculosis and abortion in cattle throughout the whole country. W. H.

"LOOKS to me like a cross between a floating coffin and a cord of kindling wood," said Toots.

Rose appeared a little huffed at this. "Is that so?" he replied. "You're a trifle too smart, young man. What do you know about steamboats anyway?"

"Well, you asked me," Toots defended himself.

Rose walked away without deigning a reply, but after supper he became more communicative. He was not one of the kind to keep his own counsel very long. As a matter of fact he was bursting with a piece of news. It seemed that a man named Rand, an old Shell Harborite, had introduced him to one George A. Hakewill, a capitalist. At least Rand had intimated that Hakewill had money. He was a kind of quasi-scientist too, a collector of rare sponges, shells, fossils and other similar peculiarities.

"And a man must have money if he can afford to go diggin' up such things," commented Rose.

"He must have more money than brains, I reckon," said Toots.

"Sufferin' Susan! You're the biggest ignoramus I ever did see," exclaimed Rose indignantly. "Don't you know that that shows brains? Don't you know they build museums as large as the whole of Shell Harbor just to put fossils in? Don't you know it takes a man years to know where to look for 'em, and more years to learn what kind of a fossil it is when he finds one?"

"How old is this Hakewill?" asked Toots.

Rose snorted. "Never you mind how old he is. Just you remember this. If George A. Hakewill owned a million dollars cash he'd still have more brains than money."

Toots digested this in silence. Presently Rose went on in a milder tone. Mr. Hakewill, who had been pottering up and down the coast on collecting trips, had conceived the brilliant idea of resurrecting the old local steamboat trade. He had studied the business situation and the existing docking facilities, and after an exhaustive investigation had decided that his plan was a sound one. He had bought up two or three old but serviceable boats, such as The Blue Heron, then lying in Shell Harbor, and was conducting negotiations looking toward the purchase of others. Later on he intended to build some up-to-date craft.

"What do you think the railroad will say to it?" asked Toots cautiously.

"It won't make any difference what they say," retorted Rose. "The merchants and truckers want the boats back and I guess they're strong enough now to get what they want."

Toots didn't feel so sure, but he couldn't formulate his objections. He could see that Rose was much prejudiced in favor of the scheme anyway. Rose himself acknowledged that he was. He had even gone so far as to intimate to Hakewill that he might be persuaded to invest some money in the enterprise, after he had looked into it thoroughly, of course. He, Hakewill and Rand, who was also interested, were going to make a trial run in the Blue Heron tomorrow. If Toots wanted to come along too, he was welcome.

Toots' attitude immediately became less critical, and he accepted the invitation with enthusiasm. He also resolved to look up the subject of fossils.

When Zach rowed them over to the Blue Heron the following morning, Hakewill, Rand and the crew were already aboard. Volney, the engineer, had got up steam, but he didn't like the look of things. "I'd be verra pleased to quit the noo," he stated emphatically. "There's things aboot this contraption I dinna understand, which ain't so surprisin' considerin' I'm no in the naval line. I'm a stationary engineer."

"POOH, pooh!" said Hakewill. "You're a good man in any line. You know it and I know it. But you Scotch love to grumble. There isn't a ripple on the lagoon, man. A sieve would be safe this weather. You're not going to let these friends of mine think you're scared?"

Volney went below, growling, to join his two negro hands. The others manned the capstan and drew up the dripping anchor, after which all trooped into the little pilot house. Hakewill shouted an "all right" into the speaking tube and took his station at the wheel. Things began to clank and grind below through the steady purring roar of steam, and the big paddle wheels harshly and jarringly revolved with a sound that suggested rusty gears. The Blue Heron swung her nose toward the harbor entrance and glided with almost a state-of-the-art air from her mooring.

Rand, Hakewill and Rose plunged at once into business. Toots sat on one of the little lockers listening and enjoying himself immensely. He was especially interested in Hakewill who used big words fluently, in an impressively off-hand way. Hakewill was a lean stick of a man in a rumpled Palm Beach suit. Physically he was as thin and

A Thinking Job

By Fisher Ames

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Synopsis

Toots Pouche, an orphan boy with no job, spends his last dollar to rescue a dog from a fight with a captive wildcat. The boy secures employment at the Broad View Hotel, a likely place run by a southern gentleman apparently more for love than for money, since it is evidently not a paying proposition. The Colonel dies suddenly after arranging for Toots to have his library. The boy and his dog are now part of the crew on Jack Rose's craft the Stingaree.

The ship's cook, Zach, and Toots have an exciting experience in the village when Zach is mistaken for a chicken thief. Back on the ship all hands are now interested in an ancient, shelly-looking craft anchored in the harbor.

yellow and juiceless as an old fall corn-stalk. He had almost no hair under his limp Panama. A few dry straggling wisps of tow-colored beard clung precariously to his chin, and it seemed to the fascinated Toots that it was only a question of time when they would be wagged off by their voluble possessor. But Mr. Hakewill's eye, though it looked as if it had been dimmed by years of peering into the history of fossils, had a compelling power that Toots rightly laid to intelligence. You could not meet Hakewill's eye without experiencing the curious sensation of being mentally turned inside out.

Toots admired the way Hakewill took control of the conversation. He altered its course just as readily as he did that of the Blue Heron. He switched from business to personalities. But on

The Cheerful Plowman



CAN'T REJOICE AT ANOTHER'S HARD LUCK

I HAVE one neighbor, I must say, who seems to take delight in seeing some one's luck give way, his day turn into night. When Dan McDuffy's daughter Nell eloped with Peter Penn, this neighbor said, "That suits me well!" The evil-minded man!

When hail hit Hal McQuarry's wheat but touched no other farm, that neighbor said, "It's worth a treat." He wished his brother harm. When Old Sal Sidenback was kicked by Phil McDougall's horse, that neighbor said "At last she's licked!" and he rejoiced, of course. When Barney Garterswish came back from New York with the flu, that neighbor said, "I feel, alack, is serves him right." Mon Dieu! When Henry Hein, mistaken lad, bought copper stock, or tin, that neighbor said, "Hein needs the shock, 'twill teach him!" Sin, oh sin!

When calves have croup, when hens have heaves, when pigs have mumps and grippe, when mould gets in the barley sheaves and tom cats get the pip, so long as others bear the brunt of all such grief and care that neighbor has a grinning front, delight is written there.

I'm not that way. It grieves me sore to see another hurt. I hate to see him topple over or grovel in the dirt. Be his misfortunes battered grain, ailing girls, or what, be it a cushion of the brain, or market tomy-rot; be he the victim of the flu, a falling price or pail, I'm right on hand. I'm telling you—I would not have him fall. The kindest word I know is his, "Too bad!"

I tell the folks, "I know just what such trouble is, misfortunes aren't jokes! Let's take him down some catnip tea, some biscuits light as air; let's show him succor full and free, let's show how much we care." How can that neighbor fellow grin when girls elope, I say, or when a baby downs a pin, or mule team runs away?

—J. E. T.

second thought Toots wasn't so sure that the latter were not good business too, for Rand, who was a lawyer, was evidently pleased when Hakewill told of a clever piece of legal work he had done, and Rose swelled up like a pouter pigeon at a flattering allusion to his international reputation as the "modern Hercules."

"It's been the regret of my life that I never witnessed one of your exhibitions," smiled Hakewill. "I feel like asking the natural question of the average small boy worshiper: 'How strong are you, Mr. Rose?' I suppose you could answer that by giving a hundred different illustrations."

Rose grinned with gratified vanity. He was never tired of this topic. "That's right," he acknowledged. "But I'll tell you one thing that maybe'll give you some idea."

"Suppose you give a practical demonstration as well by taking the wheel for a spell," said Hakewill. "If you'll be so good. She steers exceedingly hard."

Rose laughed and grasped the spokes, but before he could begin one of his boastful stories a whistle from the engine-room cut him short. Hakewill picked up the speaking tube.

"Hullo, what's up now, Volney. Don't like the way she's acting? Why, she's doing finely. Keep her to it and don't get nervous, man. Keep her to it, I say." He hung the tube in its metal fork. "He's so full of Scotch blood he can't help finding fault," he remarked.

The Blue Heron had run well out into the wide lagoon, leaving the little hard green-and-white town a blur astern. A fleet of becalmed mullet seiners lay about a mile ahead in a compact bunch. A glance through the glasses showed that the men were eating an early lunch.

"Let's have a look at the engine-room," suggested Rose. "Toots, here, can take his trick at the wheel."

As the others left the pilot-house Toots took the spokes. He saw at once that she steered hard, but it was fun to handle her nevertheless. For the sheer pleasure of feeling his control over her he swung her about a bit. They were following no particular course and had all the lagoon to play in. "She's got too much slack in her chains and too much weight forward," he reflected. "But I'll say she goes fast."

At that precise moment the Blue Heron gave a peculiar shudder that made her deck timbers crawl, as a horse twitches its skin to dislodge a fly. A dull, oozy, puffing report followed, and then a more racking shudder. Toots instinctively started to run, but recollected that the man at the wheel should be the last one to leave his post. Running feet pounded on the deck and Hakewill, followed by every manjack aboard, began to surge into the pilot-house.

"WETTER get these things on," cried Hakewill, hauling the life preservers from their rack.

"What's happened?" asked Toots. "Engine's busted," said Rose. "Confound these things. They ain't any of 'em big enough to fit a real man."

The Blue Heron gave a wild yaw. "Mind your helm!" cried Rose sharply. "You're headin' straight for them boats." Seeing that Toots could not change the course Rose put his foot within the rim and threw his weight on the wheel, which gave a little and then locked. Crack! Crack! Both spokes broke short off in Rose's powerful hands.

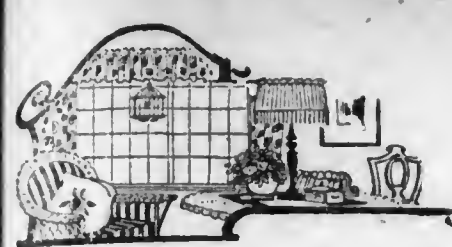
Leaking steam was oozing through the after-deck, but the Blue Heron seemed to be going faster than ever. Dead ahead lay the seiners. As the Blue Heron continued her bull-headed rush straight at them alarm spread over the fleet. Men began to stand up, waving sandwiches and coffee mugs. A confused chorus of directions and execrations arose then a sudden hush fell.

It was followed by a mad activity. Men ran out on bow-sprits and leaped off, dove from sterns and vaulted over cockpits. Their sleek heads radiated away from the boats, each head at the apex of swiftly lengthening ripples. The Blue Heron surged into the fleet with her paddles chattering. She struck the nearest seiner a glancing blow that almost put it under. One, two, three more jarring blows, a vision of wildly reeling masts and the brutal sound of the paddles chewing up wood. In the midst of the confusion Volney's two negro helpers sprang overboard like terrified frogs. Then the Blue Heron drew clear of the wreckage.

"There's a flat yonder," shouted Rose. "She'll strike it sure. Come aft of the starboard box and jump when I say so."

As they staggered aft Hakewill cast a scared glance at the seine-boats. "Hope we didn't hurt any of those fellows," he shivered.

(To be continued.)



Tabletalk and Food

By HEPSY NEFF

PERHAPS the man is still living who made the great study of what the mind can do to help or hinder appetite and the digestion of food, using dogs for his purpose. Few of us have escaped trying experiences which made eating impossible for a time. But one experience will not help the world. This scientist with a keen, inquiring mind thought out a way to open a hole into the stomach of a dog, fold the skin back in trap-door fashion, heal it and keep it healthy, fit a protective harness around the dog and study its digestive processes at first hand.

Many dogs were studied, once the plan was perfected and a long record of results was secured. Each dog was in charge of a student-master whose first task was to make himself the familiar and trusted friend of the animal. The method was to bring the dog within sight and smell of a morsel of fresh meat, open the door into the stomach and watch what happened. Always the deepening color and inflow of the digestive juices followed the sight and smell of food. Then it was found that with the food almost within reach, if a dog was sharply checked, roughly handled or scolded the usual signs of stomach action were stopped and did not go on until a friendly attitude was restored. But homeless dogs, street dogs accustomed to fighting for their food and mongrel curs could persist in a disturbing conflict with little or no check to the digestive juices while well-bred and well-cared for dogs showed no signs of appetite.

There is a world of meaning in these facts, the results of a man's patient study in the interests of human welfare. Perhaps a "will-to-win" even in a dog is something to be desired but a human being can use such a purpose to wise ends only when a clear brain is in control of all its forces. Strife, anger or contention leaves the mind like a machine with its most powerful parts disconnected. Power to make a personality depends upon joy, happiness. It must grow from within.

Most of us know very little about electricity except in its effects but we know it has tremendous force. So happiness, joy is an accumulation of very small things as well as large things. The joy of discovery, from the finding of the first wildflower of spring to the finding of a new continent which Commander Byrd and his companions have recently made the greatest achievement of the twentieth century; the joy of any work well done; even the catching of the faint, sweet note of a bluebird when those around you hear nothing because they have not learned to listen; all these joys are in the same class and make their contribution to a successful life.

Nowhere can such small joys be used with such good effect as at meal time when the family have gathered around the table and care is for a time, forgotten. It is a great privilege to feed and build a smoothly running body-machine. It is more and more a greater privilege to build a sound mind, able to use to the full the sound body which Infinite Wisdom has made possible for all children.

We have only begun to learn the meaning of meal time when each contributes something to the table talk; some new joy born of discovery, good work, real gain; the greatest means of promoting health within our reach.

The Farm Home



Money at Home

By L. M. THORNTON

A MIDDLE-aged woman, living not far from a city, yet off the state road, found herself in need of extra money. Summer boarders might have solved her problem, yet she was not strong enough to do extensive cooking during the hot months, and she was too far out to make renting rooms a success.

She had a very pleasant home, was in good health (although not strong), and her sunny disposition made her the "adored" of small nieces and nephews, and their little friends. This last suggested the thought that this might be her real talent. If children loved visiting her why not board children as a means of earning money?

Through advertisements and friends she made it known that she would take a limited number of children for week ends, vacations or for the entire summer, and soon she found that it was well she had specified a limited number.

Mothers who wanted to go away for a week end brought her their children while they were away. Mothers who were to be patients at the hospital for two or three weeks did the same. Mothers who were preparing for a visit from the stork urged her to take the older children, and one stranger to whom her praises had been sung entreated her to take her little girl who was nervous, and oftentimes ill-tempered, as the doctor had suggested that she was playing too hard with other children and needed at least six months in a country home.

When she found that her plan was to be a real success she hired a young girl to look after the heaviest work, this giving her more time to spend with her children, as she called them.

She charged the same for a child that she would have charged for an adult, but their meals were much simpler, consisting of fruit, whole wheat bread, toast, cereals, salads, eggs, fresh vegetables, chicken and very little meat. They were also given bread and milk as a fourth meal, just before bed time.

In addition to her visiting children as she called those who remained for days or weeks she had two who knew no other home. The father of one brought her there when she was three years old and was the only adult who was given board. He came every week to visit his little daughter and remained over one night. The other was a boy whose mother was employed and she could not have him with her. Although she saw him but seldom, checks for his board and clothing came regularly.

Work of this kind is especially desirable for women who have no children now in the home. Parents seem especially willing to leave their little ones with a woman who has raised a family.

Never let woollen garments freeze after laundering, as it is likely to cause shrinking.

For good health in winter, children's knees should be well covered. This helps keep up an even body temperature.

Porous garments which hold air and help in the ventilation of the body conserve warmth and health better than does heavy, compactly woven underwear.

A WEST VIRGINIA reader recommends that we try a red hot poker point next time we need to remove old putty. She says you apply this heat slowly to the dry putty and it causes it to leave the wood. Then a bit of prying with an old knife, and the putty comes out in long pieces leaving the wood clean.

Radio Hour

THE National League of Women Voters has planned a very splendid Radio program for the new year. On each Tuesday evening at seven o'clock, let us be ready to "listen in" while we darn the family socks or do a bit of finer needlework. The January addresses are as follows:

January 7.—"Education by Radio," by Hon. Ray Lyman Wilbur, Secretary of the Interior.

January 14.—"What has been Happening in Congress," by Charles G. Ross, well-known newspaper man. Also "What has been Happening in Foreign Affairs," by Hon. Wm. R. Castle, Jr., Assistant Secretary of State.

January 21.—"New Trends in Government," by Miss Belle Sherwin, president of the National League of Women Voters.

January 28.—"Recent Developments in Tariff Legislation," by Charles G. Ross.

This half-hour of education specially planned for all the women of our great land should be very helpful to the farm folk. Remember the time—each Tuesday evening at seven o'clock, National Broadcasting Co.

Did You Ever Try This?

DISCARDED coats used to accumulate pretty fast around here, and I have this one use for them that might not have occurred to others. The Home Pages are such a help and inspiration to me that I would like to offer this suggestion for my sister readers.

I rip the seams carefully and make the longer pieces into warm slips which we find very comfortable during winter. They are too heavy for tops as a rule, but are easily attached to lighter weight material. These slips wear very well too.

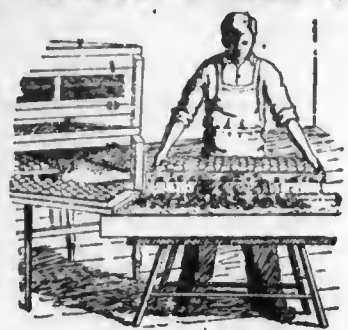
Mrs. C. L. L.

To cover meat with a mixture of vinegar and oil and allow it to stand a few hours before cooking will help make it tender.



Kitchen in the home of Mrs. Harrison S. Nolt. Notice the sink with double drainboards and swinging faucet. A roller shade on the lower part of the kitchen cabinet hides the implements and materials which cannot be put away elsewhere in the cabinet. The electric range at the right has done all of the cooking for this family for four years. The fireless cooker beside the range is now used only as a table. It has been supplanted by the range. Observe the fire extinguisher. Mr. Nolt is one of Lancaster county's Master Farmers.

PREVENT



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Clean out the brooder houses with Iodine Suspensoid solution before putting in young chicks. Each pound of Iodine Suspensoid properly diluted with water will treat approximately 400 square feet of floor space.

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A Warm, Light Brooder House Is One of the First Essentials of Successful Poultry Production

Poultry Problems

A New Disease?

I have 115 Leghorns in a coop 20x20 feet. I feed all the mash they want and 12 pounds of cracked corn in the evening and four in the morning. Grit is in front of them all the time. They started to lay at five months old. They were laying 40 to 50 eggs a day until a week or two ago their combs turned pale and I am getting 18 to 20 eggs a day now. I killed one and found that one egg was like a pea and had blood in it and two were hard and the rest were rotten. John J. Turouski.

DURING the past few weeks there has been prevalent in poultry flocks throughout this state a disease which is causing a decrease in egg production but very little mortality. This disease affects the birds in the following manner: Egg production declines rapidly, the birds' combs turn blue or purple, a diarrhea condition is present and the birds often show signs of molting.

As to treatment, I would suggest that you give the birds Epsom salts at the rate of one pound to 400 pounds of chicken, withholding the night and morning feedings before the salts is given. After the salts treatment, supply the birds with an abundance of water. The salts may be fed in a moist mash in the morning. In addition, remove the scratch grain, feeding the birds only on mash and if possible flush them with liquid milk or buttermilk. One treatment of Epsom salts is sufficient but the feeding of milk and the reduction of the scratch grain in the ration should be continued for two weeks. After this time gradually work the birds over on the regular ration. H. C. K.

About Geese

I have enjoyed reading your articles in Pennsylvania Farmer. They are practical and very helpful. The articles on geese I have found timely and I want to ask you a few questions about some geese I have.

I have some early pure-bred Toulouse geese, hatched from a goose that laid 46 eggs last year (which was her first year) and 53 eggs this year. What do you think would be a fair price to ask for them? This goose began laying the latter part of February and laid until the last of May.

Is it unusual for a Toulouse goose to lay as many as 53 eggs?

Will salt kill geese?

What should be fed to supplement dry grass in summer? Halile B. Willis.

GEESSE for breeders bring from \$5 each on up, depending on the breeding, size and other individual characteristics. Good geese should bring two or three times the price quoted, which is a minimum. If the eggs from your hen hatched well, she is a valuable bird, as she laid about twice as many as is common, and should be kept as long as she breeds well.

Salt is toxic to most domestic fowls in quantities greater than one per cent of the feed, but I cannot tell you just the effect on geese.

For roughage at any time, green grass, waste vegetables, apples, weeds, etc., are relished by geese.

The U. S. Department of Agriculture, Washington, D. C., publishes an

interesting farmers' bulletin on geese, which is free if you write for it. R. L. S.

Probably Too Much Grain

I have two pens of White Leghorn pullets, 200 to each pen. One pen was hatched April 7th, the other May 1st. For the past four weeks have had as high as six cases of prolapsis in one day. Have lost about 35 so far. The ones that did not die bled at the vent and then in a few days pass a white substance.

I am feeding a good commercial mash and about three pounds of dried buttermilk in a moist mash each day. Also feed sprouted oats and 28 pounds of scratch feed to each pen. They are laying from 25 to 30 per cent. Would too much grain cause it? Is it possible for it to be bred in the chickens? Robert L. Wright.

YOUR pullets are not laying very heavily, and I judge that you may have been giving a little too much grain so that they are over fat. Very often an accumulation of abdominal fat predisposes to prolapsis. Constipation is another cause, although since you are feeding sprouted oats and buttermilk, your pullets should be in good loose condition. If you think it desirable, give a light dose of Epsom salts, say one pound or less to each pen in the drinking water, and if your birds are pretty fat, cut down the grain somewhat until they are laying around 50 per cent, when the quantity can be increased.

When a bird with prolapsis is found in time, the protruding parts, can be washed with a mild antiseptic and returned to the body cavity. The white substance you mention is the result of infection. However, it generally pays to kill the bird immediately and use it for food, as infection may set in or the trouble recur.

Some poultrymen believe that the tendency to prolapsis may be present in a particular strain. H. L. S.

Weight of Eggs

Please let me know how many ounces a dozen of eggs must weigh to pass for highest prices in New York market, also weights of second and third. Are the weights the same the year round for nearby extra selected white eggs in New York?

Does it pay better to grade eggs and ship to New York than to sell eggs at Philadelphia, quotations as they come from nests if I receive extra first price? Jonathan K. Benner.

THE weights of eggs you ask for are: Extras, 24 ounces per dozen average, with a minimum of 23-ounce eggs; mediums, 20-23 ounces per dozen; pullets, 18-20 ounces per dozen. The market makes further grades according to interior quality of the egg and color of shell, including presence or absence of tints.

Whether it would pay to ship to New York rather than to Philadelphia would depend not only on the difference in price but also on the number of eggs you have to ship, their quality and the way they grade up. If I understand that you are receiving top price for run of nest in Philadelphia I think you had better continue, unless you are getting a great many eggs. R. L. S.

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The Leola Brooder adds pounds to your hog and subdues dollars from your feed bill.

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Nest Box Notes

By R. L. SCHARRING-HAUSEN

I RECENTLY had occasion to do some whitewashing, and made a mixture of 50 pounds of finishing lime, two pounds of powdered glue and enough hot water to moisten thoroughly. Dissolve the glue in the hot water. This whitewash sticks like paint.

DECEMBER has been full of concentrated meanness, so far as the weather goes. We have had a few nice days, but a lot of cold weather, high wind, snow, rain, sleet and fog. Just as I write this it is so foggy outdoors that you'd get lost going to the barn. Foggy weather means damp litter, which in turn means get busy and clean it out as soon as possible.

TURKEYS seem to be pretty cheap this year. The dry season gave the poults a chance to grow up without getting soaked, and the new turkey raising methods enabled a lot of growers to raise large flocks, so that the supply was more liberal and prices lower.

RIGHT now is the time when many forward looking poultrymen are getting ready to place their orders for chicks. Early ordering means a choice of dates, whereas late ordering often means that chicks cannot be obtained just when wanted.

Turkey Lays 151 Eggs

I WAS reading in The Pennsylvania Farmer where a man owned a turkey hen that laid 97 eggs in a season. Mr. and Mrs. Wilmer Berry of Marshall county, W. Va., own a Bronze turkey hen that started laying March 25, 1929, and laid until November 27, 1929. During this period she laid 151 eggs. She never sat during this time.

Who has a turkey hen that can beat this record?

C. B. Allman.

Bronze Makes Record

I NOTICED a report in your paper of a turkey hen that laid 97 eggs. I bought a pure-bred Bronze hen last fall that has laid 169 eggs. She laid ten eggs and wanted to sit. I broke her up and she started to lay again in a week and has never missed more than a day or two at a time, until she got hurt, accidentally.

I changed her feed several times, thinking it would make her stop laying and molt, but it had no effect on her.

Mrs. G. D. Barnes.

Merced county, Pa.

Lame Pullets

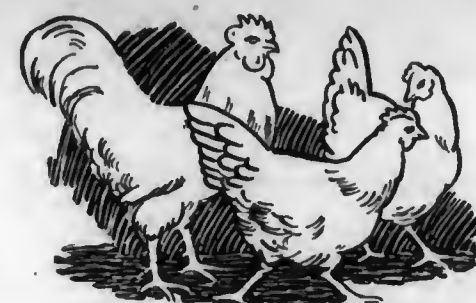
What could be the trouble with my lame pullets? They start to get lame and stiff and in a few days can't walk. Some can't hold their wings in place.

Mrs. A. L. H.

THE trouble with your pullets may be due to worms, which can be determined by sitting the intestines of a dead bird and examining the contents to see if the intestinal parasites are present. In case you find worms, use one of the poultry vermifuges which you will find advertised in this and other poultry papers.

If worms are not present, the disease is probably range paralysis, a rather mysterious ailment for which there is no certain cure. Some poultrymen have given paralyzed birds chloris powder with good effect. I understand that birds exhibiting the first stages of range paralysis are fit for food.

R. L. S.



Charles Pike Stages this Egg Contest to prove which feed is best

B-B

LAYING MASHES

Vitaminized with Cod Liver Oil and B-B Scratch Feeds are guaranteed to give most eggs or money back.

CHICK STARTER RATION

combines in one mash all ingredients needed for baby chicks. Also supplied separately in B-B Baby Chick Feed.

GROWING RATION

combines in one mash all ingredients needed for growing birds. Also supplied separately in B-B Growing Mash and B-B Developing Feed.

DAIRY FEEDS

24% Dairy Ration, 20% Hi-Test, 16% Marmico. A protein content suitable for every grade of roughage.

BULL BRAND B-B FEEDS

24% Dairy Ration, 20% Hi-Test, 16% Marmico. A protein content suitable for every grade of roughage.

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Uncle Charlie says.

To convince yourself that BULL BRAND gets more eggs for less money... Make this test

CHARLES PIKE of Spring City, Pa. heard so much about the results poultrymen were getting with Bull Brand Feeds that he decided to try them. But, like all successful poultrymen, he didn't want any guessing — he had to have facts and figures.

How B-B Won The Test

So he divided a test flock into three pens of 50 hens each. One of these was fed what he thought at that time was the best commercial feed, another got a home mix, while the third was put on Bull Brand. When the test was over, B-B led the contest by 80 eggs. Then Mr. Pike put the pen with the poorest record on B-B, and they quickly caught up with the winners.

Year after year B-B poultry feeds go on rolling up records for more eggs... sturdier and more active birds. "I have fed B-B Laying Mash to my 124 hens and I got as many as 97 eggs a day during November. B-B is absolutely the best feed I have ever used," writes M. Alvater, Brooklyn, Md. "I consider

B-B safe and economical. June pullets are laying 63% in coldest weather. My hens took first prize for best laying condition at the Fairs last fall," reports H. P. Birden, Barkhamstead, Conn.

Only by making a test yourself will you know what B-B feeds can do for you. Get enough B-B Laying Mash, vitaminized with Cod Liver Oil, and B-B Scratch Feed to last one pen 30 days. Write to me if your dealer can't supply you. At the end of the test period compare the egg production, the size and shell of the eggs, the condition of the birds, and the feeding cost. If B-B doesn't come through, take the empty bags back to your dealer and he'll return your money without question.

Valuable Poultry Book FREE

Here's one poultry book you don't have to be a Philadelphia lawyer to understand. "Making Poultry Pay a Profit," by Prof. L. M. Gilmore of Syracuse University. I'll gladly send you a copy free. Just mail the coupon.

MARITIME MILLING CO., BUFFALO, N. Y.

"UNCLE CHARLIE," Care of Maritime Milling Co., Inc., 1106 Chamber of Commerce Bldg., Buffalo, N. Y.

Send me at once a copy of Professor Gilmore's 64-page book, "Making Poultry Pay a Profit." There is no charge or obligation to me.

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"The Story of Old Slim"

BILL lit up his pipe for a few good pulls before beginning the story of Old Slim. Short, red flames, like hungry wolves' tongues, licked the logs as Bill blew out slow clouds of dense smoke. Old Bill has a wonderful way of making you see things. The group around the fire could almost hear a wolf howl in the wind's moan in the stone chimney.

"I'll just only tell you about a little incident to give you an idea what sort of endurance that dog had, boys," said Bill when he was ready to resume.

"Of course, I never found out how long Old Slim could run. It was like the case of Bill Harkinson's old maid sister who allus said you never could have told how many children she would have had if she'd got married. But I'm agoin' to tell you about his last chase, boys, th' one time in his life when he really cut loose with the best he had an' ran. This ain't a story of endurance, though th' chase lasted quite a spell; it's just a simple, straight forward account of what that dog could do in the way of runnin', give to you straight without no exaggerations or nothin', but what I can recollect perfectly plain as if it was yesterday it happened.

A Rabbit with a Reputation

"Boys, you've all hunted th' white rabbit we have around these parts, them that's white in the winter an' brown in summer, an' you know they kin run. They're first cousin of th' jackrabbit on its mother-in-law's side an' I'll say th' common ordinary 'run of 'em kin clip along about as fast as a Kansas jackrabbit, for I've hunted both kinds.

"But they's freaks in every line, boys, an' one year—th' last year I had Old Slim, it was—they was one big buck rabbit in these parts that was twice as big as the white rabbits commonly grow. I'd tracked him an' hunted him an' put more'n one load of shot after him, but say, he could go like a bat out of hades an' I'll declare he just appeared to run right away from th' shot. I kept hearing about him right along an' one day it come to me, 'Why not start Old Slim for a little go with Mr. Jack?' An' I made up my mind right there that that big rabbit was my meat, an' I'd carry his left hind foot on th' string of my powder horn.

"Well, sir, boys, you wouldn't believe th' particular trouble I took gettin' that dog in shape for th' chase. I'd told a few folks about my intentions an' they was all cooked for that rabbit chase. Most of 'em thought Old Slim would catch the rabbit, but all of 'em hoped he wouldn't, because he wasn't their dog, see. That's another peculiar trait in human nature, boys; it takes a big man to enjoy seein' another succeed, if they'd only admit it.

Intensive Training

"For a hull month, boys, I turned that dog an' worked with him same as they do a thousand-dollar race horse. Every night I rubbed him down an' bandaged his legs after workin' him out a little in the fields on cottontail rabbits. I fed him nothing but lean meat an' bones an' a little corn cake. An' to'rds th' last I give him a teaspoonful of gunpowder wunst a day to put th' ginger in him. An' say, boys, it put it into him all right!

"When I'd lead him out to train him, he'd be right up on th' collar an' tug-gin', and both front feet beatin' th' air like he was swimmin'. Boys, it was just like hangin' on to a skyrocket. When I'd leave him go he'd jump twenty feet th' first crack an' be gone in a couple of leaps. He felt so over powerin' good he had to run, an' he'd circle around ten miles or so before he'd bother with any cottontails.

"He was a mighty intelligent dog, Old Slim was. He knowed I was gettin' him in trim fer somethin'. Well, sir, boys, when a month was up he

was just right. He wasn't carryin' an ounce of fat an' no more meat than just what he needed for a hard chase. His muscle stood out in cords; he was like a skinned frog. Boys, he looked like a mile-a-minute an' then some. I'd backed him in a race ag'in anythin' that wore hair.

Off Like a Rocket

"Well, sir, boys, when th' day come fer that big rabbit chase they was as many as forty people on hand to see the fun. Of course they all knowed Old Slim's reputation an' they knowed that big buck rabbit's reputation, too. That rabbit was known from Lake Erie to th' mouth of French creek an' north to Bear Lake. He'd got to be sort of a by-word fer speed. If a horse was a fast goer folks would say, 'He can go like that big rabbit up in Bill Trimm's country.'

"Say, it was a wonderful day for a chase, no wind an' th' air just cool enough to be right. I untied Old Slim an' he most dragged me out of th' barnyard to'rds th' flats. Th' boys had been bettin' on th' chase, but when they seen him th' jackrabbit backers quit. You couldn't git as much as one to ten on th' dern rabbit.

"Well, th' crowd follered me down across th' flats to th' place where I cal'lated we'd jump th' big buck. When everything was ready I slipped th' collar an' away went Old Slim—wh-s-s-s-s-h—like a rocket that's fell over an' shot along th' ground. An' as luck would have it he jumped th' big rabbit in plain view of th' hull crowd an' away they went.

"Old Slim let out one beller an' opened up like I'd never seen him before. Boys, boys, it was grand! It was champagne agin champagne—one of 'em runnin' fer his life an' tother fer his reputation. Th' chase led right off around Powder Mountain—you all

know that country, boys, it's just five mile around th' mountain. I knowed that big rabbit would circle it an' he'd figger he'd leave Old Slim afore he got around th' first time.

Ideal Setting for a Race

"Gosh, that chase couldn't a been staged better if it had been on a race-track, an' us a sittin' on the grandstand. Th' men set around on stumps an' logs—those of 'em who wasn't so excited they couldn't set down.

"I'd timed th' start, for I knowed how th' chase would lead off. I wanted to see how long it took 'em to do th' five mile round th' mountain. It were exactly 3:20 when Slim jumped th' big jack an' it were 3:23 th' first time they come around and whizzed past us. If any of you boys got a pencil you can figger out their time on a mile—I can't do it in my head. To make sure I'd timed them right I held the watch on 'em agin, an' on th' second lap they made it in ten seconds less; you see they was warm'n' up an' doin' better right along.

"Oh, boys, boys, them was two thoroughbreds, that big Jack an' Old Slim. A feller's got to take off his hat to both of them. It ain't every day, ner every century, that kin produce a dog an' a jackrabbit like that pair.

Crowd Goes Wild

"Did you ever hear a woman tearin' up sheets to make rag carpet? That's what it sounded like when they came around th' mountain—just one long 'rrriippippi' with a sort of whistle tacked on, like a fisherman castin' his tin minnow away out fer bass. Every time they passed us th' crowd just went crazy an' hollered their fool heads off until it echoed clear across to Panther Holler, a mile an' a half. They keep a goin' faster

and faster an' by th' time they made about ten trips around the mountain they was travelin' faster than sound. You'd hear 'em whizz past like a hull mile of bed sheets a tearin' an' in a few seconds you'd hear Old Slim bark, which he'd let out two miles behind, comin' roarin' along after him; but not able to catch up.

"Boys, you could imagine th' excitement of that crowd a watchin' th' chase, or I mean to say listenin' to th' men fellers was clear wild. I kept a wishin' I could get a look at Old Slim to see if he was sweatin' very much, an' I wished I could see how fer that big buck rabbit was ahead of him.

"'Couldn't you see 'em when they come a-past, Bill?' some one asked. 'See 'em?' Why you poor darn fool—we hadn't been able to see 'em from th' first. They come right close past us in open ground every time they made the circuit, but we couldn't see 'em—they was travelin' too fast! You couldn't catch sight of them no more than you kin th' bullet out of a gun.

A Proud Moment

"Well, sir, boys, they kep' a-circulin' that five-mile route fer an hour steady. We could tell by listenin' close that Old Slim was gainin'. We knowed it because they'd made a kind of double sound at first, 'whizz—whizz,' but now they was close up so it was just one 'whizzzzzzzz' as they went. Then all at wunst we heard that big jackrabbit squeal an' we knowed Old Slim had got him. A rabbit will squeal awful loud one time when he's caught, but he just gives one squeal an' he's through whether he's killed right there or not; you ask any old hunter.

"I knowed Slim had him though he didn't stop on that round. 'Never you mind folks,' I says to the crowd. 'He's got to make another trip around the mountain to get slowed down. He's carryin' the jack with him an' he'll stop next time all right.' An' sure enough, boys, he did, an' it was just as I'd told 'em—Old Slim came lopin' in with Mr. Jackrabbit in his mouth.

"Th' chase had lasted two hours an' as near as we could recollect they'd made seventy-five trips around th' mountain, five mile to a trip—you can figger th' distance fer yourself. He stopped in front of me and layed him down. Boys, I was the proudest gent in twenty states at that periculiar moment."

The Fatal End

Bill sat gazing in the glowing red bloom of the fire seemingly tired with the feeling of a terrific tale. A real tear stole down his brown, old nose and sparkled on his gray mustache.

"Boys," he said, "I hate to tell you th' end of that there chase. It most broke my heart at th' time an' just thinkin' of it bothers me now. It was th' wind-up fer poor Old Slim, th' best dang dog th' good Lord ever put breath into. When he came up to me an' laid down that big jack 'most as big as he was—I smelled somethin' scorehin' an' I see right off th' poor dog was 'most burned to death. Yes, sir, boys every hair on his hide was scorched off, an' his ears, an' tail was charred like charcoal.

"You see, boys, he'd run so fast th' friction of th' air had done it, heated him up like it heats a high power bullet. He just only lasted till the next day an' died. It about killed me too.

"An' that there jackrabbit was cooked—yes, sir, cooked so complete we never needed to parboil him. Th' woman dressed him an' heated him over ag'in fer a stew, though it were hardly necessary to cook him no more. But I couldn't eat none of him. I was feelin' too bad about Old Slim, an' anyhow that jackrabbit was too good a sport to eat. Him an' old Slim had both ought to have statues set up for them."

John B. Shank

Franklin County, Pa.

"Varmints"

IN an article some weeks ago Mr. Agee spoke on the insect menace, which I believe could be compared with the rodents and such animals as rats, skunks, minks and weasels, which are always ready to undermine a man's efforts to house and feed himself and his family and livestock by honest means.

These pests spend only a portion of their hours catching their prey and the balance is spent plotting and scheming how and which would be the best and most certain way to take the advantage and get their designs accomplished. The law of the land is none too severe on perpetrators of this menace.

The extra care we must take of the stock, such as bedding, hauling ma-

Plenty to Do

THE winter months are with us again, the time of the year that city folks refer to the farmer as being housed in with nothing to do. This statement of course is far from the truth, for no successful farmer idles many precious hours away. There are in reality many very important jobs to be done in the winter, as every agriculturist knows. Neglect of these small things, in the cold months, goes a long way in making farming a failure.

Leaky roofs on the house or out-buildings soon cause a heavy loss in damage to the building and its contents. The drainage of the fields is an excellent occupation when the ground is not frozen. Poor drainage of the fields is a sure sign of a crop failure. Even when the ground is real wet ditch digging is a paying job.

The stumps we see in so many fields offer an excellent occupation on cold days. A few sticks of dynamite and a pry and we have rid the farm of a nuisance. The ground reclaimed, aside from the time and labor saved in cultivation, pays many times for the cost of dynamite and labor.

Stones—have you ever considered how much they reduce the crop? Besides making cultivation easier and faster the ground reclaimed by removal of stones is tremendous. The stones themselves have many good uses for the farmer, mainly cement work or filling ruts in lanes.

Cleaning fence rows, building good strong fences, although often neglected, we all know are very important.

The washing and greasing of harness the oiling and repainting of all farm implements calls our attention on wintry days.

The extra care we must take of the stock, such as bedding, hauling ma-

nure, regular feeding, and the water lines to keep thawed out, all if properly done cut heavily into the short winter days.

The pruning of trees, grape vines and shrubbery must be done in the closing days of winter. Odd jobs such as butchering, hauling coal, with the many numerous tasks around the house, help to keep you very busy in the winter. For no matter how hard you work there is always something more to do. Many times it is not a question of finding work but what is most important to do.

Taken all together, the farmer has many important tasks to do in the winter, and to neglect them points to one final ending—failure.

—George A. Frye

A Place for Everything

ONCE visited a prominent farmer who had a place for everything. Over the brow of the hill in his pasture, out of sight from his farmstead were all the things that so often clutter up a farm and make it unsightly. There was the pile of reserve posts; hard by and neatly stacked were the fence rails; at the same place was a wood pile of junk wood always due right there when torn out of fences, buildings, orchard limbs; abandoned farming implements stood in a row at hand for repair parts and emergency irons. The hundred and one things that might have disfigured his farm were right there, out of sight, but handy for use.

Yesterday I attended a farm sale on a road that I had never traveled. The whole place presented such a topsy-turvy appearance that it seemed as if a sale were a blessing. It looked as if life in such surroundings must have been dreary. Here was an old cob-sled settled down in the mud not used for years; a wind-swept and tattered old buggy still stood its ground in a prominent place; orchard trees dead and toppled over nurtured an abundant crop of burdock brons; old papers and rusty cans, waste irons of all kinds and refuse straps, worn-out brooms, ramshackle chicken coops, useless battered baskets and crates and a hundred amusing bottles greeted the eye wherever one turned. Old half-rotten boards, pickets, pieces of fence rails and dilapidated farming implements littered the whole place.

Mr. Agee several years ago suggested in this paper that the faculty to destroy should be cultivated. What of the ash pile over the back fence; what of the tin cans; what of the brush piles; what of the crumbling shacks and junked implements; what of the rotten rails and posts—what of the hundred disfiguring but absolutely useless articles that insult the eye on so many farms? Substantial improvements on the farm suggest ample buildings, etc., but the cheapest and most substantial improvement is a sharp and industrious clean-up.

Whether rich or poor, owner or tenant or farm hand we can all have clean looking places. They react on our morale; they encourage and compel us; they go far toward establishing a man's character in his community. People believe in that sort of stuff and it gets one further. Living in a maze of trash and junk and "trumpery" is pathetic—pathetic, I repeat, because so entirely unnecessary.

—H. D.

Easy Tree Pulling

IN one of the fields of the farm I bought some years ago, to add to the old homestead farm, was a very

Farm and Town Wages

IN answer to "A Sod Buster," who wrote in December 14th paper, I think the working man and the farmer are not getting justice, but Mr. Buster's letter does not hold good in central Pennsylvania.

I lived in Harrisburg from 1919 to 1923 and averaged over \$150 a month, but paid \$40 to \$45 rent for an ordinary house.

Worked as tenant on farm at \$50 cash per month, had a fine house, five minutes to train, and concrete road, etc. Got anything I could raise and use myself, use of milk and butter, got the meat of two pigs, one-third of all eggs and increase of chickens. No feed to buy of any kind. Made over \$300 on the side in cash besides increase on eggs and chickens in one year, and figured I had as much if not more than I had in town. And take it from me, I did not work an average of over eight hours per day.

I think that place is a fair average of this district, although I know of only five or six farms at any time having a man and family working at

What Our Readers Say

large mulberry tree in a corner about twenty feet in from both fence lines. The tree was a triple tree. Three trees were growing up and united at the base—the roots.

This tree, or rather its removal, was a problem. Sawing down three trees at once is a thing which I will never try. I have even given up trying to saw down two trees at one and the same time. Why? It simply can't be done. The saw sticks. Cutting it down with the ax would leave a large stump. There will be no more stumps for me either. Six times we bent the end of the binder knife so badly by driving against stumps standing out a little from the fence lines that it was got out and straightened with the greatest difficulty. Other implements suffered. Stumps are a nuisance in worked fields.

Early this fall I thought of the right way. It is ridiculously easy and simple. Here is the plan: I dug away the ground around the tree about twenty inches deep, cut off all the roots I met—and I met plenty, but a sharp ax cuts green roots almost like cheese—and then I quit right there and then.

A few weeks later along came the equinoctial storms with their accompanying downpours and one morning one of the family said to me: "The tree is down." It went down so easy, too, that not a limb or a stick was broken. The handle of the pick used in digging left at the tree's side was caught, but the ton weight resting on it didn't faze it either. "As for me, give me the liberty" to get rid of useless, hindersome trees in this way; others may work themselves to "death."

—R. I. Weigley

Potato Futures

EDITOR, Pennsylvania Farmer: I hope some time to meet you, having known many editors of farm and trade papers and having had much pleasure from discussing farm problems with them. At the same time I rather expect to find that we take more time in disagreeing about something that comes up in the talk than we do in agreeing, for we are both men who resolutely think for ourselves.

However, we thoroughly agree on your editorial about speculation in farm products. Many people want to end speculation, or say so, when what they really want is for no one to make any money out of a particular ar-

ticle or product except themselves. This is impossible in the case of nearly all farm products, for as in the case of potatoes the period of consumption is much longer than the period in which they are being harvested for market. Some one obviously must bear all the risks and expenses of storing each farm product till the consumer wants it.

In the case of potatoes the late or main crop is much cheaper to produce per bushel than the early crop. Through the spring months the consumer has the option of eating either the new potatoes from the Far South or old potatoes kept through the winter from the previous year's crop.

My records show that in the past five years the average number of carloads of old crop potatoes shipped after April 1st has been 31,292, including imports from Canada, while the average number of cars of new crop shipped in the months of April and May has been 12,149. When we remember that practically all the new crop goes to market by rail while more than half of the old crop is either consumed on the farm or sold by wagon or truck it is plain that four to five times as many old potato-

atoes are consumed in the spring months as of new.

Some one must own all these old potatoes from the time they are harvested in October or November till they are used, practically six months. Whoever does so must be a speculator, whether he wishes to be or not. No one can foretell what the spring market will be, for it depends on a number of factors. Any consumer who wishes can insure himself against loss by a rising price by buying in the fall, and some of the worst kicking I have ever heard has been by consumers who bought 15 bushels in the fall and saw the price fall in the spring.

One of the greatest needs of the potato business is a potato exchange on which the grower can sell his crop at any time for future delivery. Unfortunately, the natural variation between potatoes grown under different conditions is so great that it has been found to be impracticable to fix standards which shall be effective. The present U. S. grades are a working substitute of great value.

When you want to think a little for yourself, get the statements of European financiers on the present situation here and see the difference between the intelligent man and the vast number of educated men who are now learning their thinks from Wall Street and Washington. And just for one minute imagine any labor union representatives who should express themselves as being heartily in accord with a program for raising the price of food.

Daniel Dean.

What Shall We Raise?

WE are all interested in making our farms pay better. For the past few years our farms did not pay big dividends. That is the average farm. I cannot forget the much good advice that the late Mr. W. W. Reynolds of Ohio gave us. He used to preach to us to cut down in our production, let more land lie in grass for hay or pasture and take it more easy on the farm. Soon our produce would bring a living price.

I think that after all the law of supply and demand is the only real price maker. Many think that our "farm bloc" in Washington can help the farmers, and undoubtedly it can, but the real thing has to be done by the farmers themselves.

Farming is a business like anything else. It takes brains to farm these days. We have to study and learn and experiment. We have to cut out such crops and such methods as do not pay. I think I have found a new crop that will pay. I intend to plant ten acres to broomcorn next year. I intend to plant 100 acres in corn. I raise quite a few pigs and with corn I can fatten them. I can do all this very economically with the tractor and the two-row cultivator. This works so well that it is a real pleasure.

Meat Products Retailed

We have to be in love with our work if we wish to succeed. I enjoy myself on the farm. I do not look forward to the time that I will retire. I intend to stay on the farm at my occupation as long as I can work.

I might simplify the work much more. At present we do butchering once a week and sell fresh and smoked meats from a stall in the market house. We cure all the hams and smoke them in the old-fashioned way and sell them at 40 cents a pound. We cut up the shoulders fresh, spare-ribs 28 cents, back bone 22 cents, tenderloin 48 cents, rendered lard 16 cents, fresh sausages in hog casings 27 cents, smoked 29 cents. These sausages we make from half pork and half beef.

Then we make another kind of one-third pork and two-thirds beef, put in the hog bladders and the half wide beef casings. These we smoke and sell at 32 cents. The puddings are made of the liver, hog skins, meats cooked from the pigs' heads and bones of the

beef. For this we get 25 cents.

We have so arranged our fields that we plow only the best soil. Fields that are wet and not profitable for rotation of crops we put in grass for either hay or pasture. Some we planted to timber trees, such as white pine, Scotch pine and Norway spruce. Some farmers have some fields that lose them money every time they plow them for a crop.

I do not like to see fences except at the pastures or where they are needed. We have our pastures fenced in fields so that we can transfer animals from one to the other, which is better than for them to run over everything to tramp it down.

A Permanent Pasture

Our Kentucky bluegrass is showing itself pretty well by this time. By spring it will be four years since we started our 30 acres of permanent pasture. The soil was poor. We had it in corn the year previous. Then limed it with 50 bushels of fresh burned stone lime to the acre. In May we prepared a very fine seed bed and sowed heavily with a mixture of timothy, redtop, sweet clover, Dutch clover, alsike, red clover and the biggest amount of Kentucky bluegrass, with three pecks of oats as a nurse crop, 300 pounds good grade fertilizer to the acre.

The season was a good one and the growth was wonderful. We cut the oats when it was headed out and let it lie. This was a good mulch for the young grass during the hot weather and the result was very gratifying.

The following year the sweet clover and redtop were very prominent and almost discouraged me, as I did not see much Kentucky bluegrass. But it is getting very prominent now. I have learned that it takes time to establish this very valuable crop.

I also made a mistake in using too much of a mixture. Better not use redtop but more Kentucky bluegrass. It will not take so long for the bluegrass to become established.

How proud I am of this bluegrass! This will be sweet to our young cattle. We buy dairy calves, either male or female, and raise till two years old when we sell them. I would rather buy beef calves, but they are not to be found around here.

Berks county, Pa. C. R. Bashore.

Sixth Horticulture Week at State College

THE Sixth Annual Horticulture Week at State College, December 9-11, attracted fruit growers from twenty-three counties, Adams county leading with ten. About twenty-five per cent of those in attendance came nearly every year, showing that these gatherings are meeting the avowed purpose—"to keep posted on progress in horticulture," to some extent at least. A booklet review of recent developments, entitled "What Is New in Horticulture?" is distributed.

Homer C. Price, a fruit grower of Newark, Ohio, reported that dusting is gaining in favor in Ohio, replacing spraying in some orchards, and supplementing spraying in others. Either method, he said, gives satisfactory results in Ohio if done right. He finds the cost of twelve applications of dust and six of sprays to be approximately the same, with equivalent results. In the last two years a mixture of superfine dry lime-sulphur with commercial sulphur dust, 85 parts to 15, has given better control of scab than sulphur dust alone.

Stationary Spray Plants

The stationary spray plant has been successful in Ohio. Mr. Price predicts that within a few years most of the fruit growers who prefer spray to dust will install stationary plants. He is an advocate of very low heads and low lying limbs for apple trees, not only because of convenience in spraying, harvesting and pruning, but also because the branches shade the ground beneath the trees so that there is no grass there; then if a fire starts in a sod orchard of such trees it may burn off the middles but will not reach the trees.

Mr. Price sells most of his fruit at the farm. He finds that conspicuous arrows, pointing the way to the farm, are more serviceable, and much less expensive, than elaborate roadside signs. He charges the wholesale price at the packing house (not the roadside market) rather than the retail price and finds that this can be stressed in his advertising to advantage. Most Pennsylvania growers, however, charge "all the traffic will stand" at the farm; this is nearer the retail than the wholesale price.

Six Days to Sell

Sunday selling, in the judgment of this Ohio grower, should be discouraged, not only because of religious scruples but also because the fruit grower puts in six strenuous days a week and needs the seventh for rest. "It is an imposition on the fruit grower," said Mr. Price, "to expect him to work seven days a week; you can't get a hair cut on Sunday and most other business men take a rest—why should we be the exception to the rule?"

Stewart Bear, of Scotland, Franklin county, reported heavy loss this season in that section from the second brood of codling moth. Much of the trouble, he says, may be traced to nearby unsprayed orchards. He wonders how long it will be before we shall have in Pennsylvania, in the more intensive fruit growing districts at least, compulsory spraying of neglected orchards. If this has been found necessary in the Pacific states, for the protection of progressive fruit growers, why not here he asks.

Paid to Spray

F. N. Fagan, of State College, reported that there were four freezes (ice formed) and also five heavy frosts during the protracted blossoming season in the College orchard last spring. There were white frosts on several mornings when he was trying to put on sprays. Yet this orchard had a fair crop. One of the reasons was

that the spraying program was carried out just the same. A good many growers, feeling sure that no fruit could possibly pull through such weather, either abandoned or curtailed their spraying program. That was a mistake; these men might have had a fair crop if they had kept to the usual schedule.

Professor Fagan stressed the importance of tree vigor resulting from successive years of good care. It enables the tree to resist unfavorable weather conditions, to some extent; vitality counts. One block of Stayman in the College orchard averaged five and one-half bushels a tree, another block two and one-half bushels. The difference was due, apparently, to the cumulative effect of care in preceding years. Confirming this statement, several growers reported that they had a good crop of Stayman only on trees that stood in low, rich spots in the orchard and were exceptionally well nourished. This variety apparently becomes less certain in production as the trees get older, and requires heavy fertilizing. The problem of the unproductive Stayman orchard is one of nutrition as well as pollination.

Poison Baits for Mice

R. D. Anthony, of State College, emphasizing the paramount importance of maintaining the organic matter content of the orchard soil, called attention to the practice in southern

California. According to H. J. Wilder, county agent of San Bernardino county, California, who was a recent visitor at the College, the citrus growers of that district are finding that they cannot possibly grow enough cover crop in their closely planted orchards to maintain the organic content of the soils, especially as the trees grow older. So they have resorted to spreading alfalfa hay over the soil and chopping it under. It costs about \$12 a ton and two or three tons may be applied annually.

W. W. Livingood, of Robesonia, has had excellent results from using tin cans, salvaged at the town dump, as poison stations for mice. He does not remove the bottom, but merely makes a dent in one side, to hold the bait. Second-grade or cull half-pint milk bottles, costing about one cent each, also make satisfactory stations. Several growers merely place pieces of boards around the orchard; the mice burrow beneath this cover and this is the place to put the poisoned bait. In his judgment, the opportunity to purchase poisoned bait from the federal government (Bureau of Biological Survey) will greatly simulate its use; fruit growers can prepare poison bait on the farm but few care to do so.

Any Pennsylvania fruit grower whose orchard failed to "hit" this year, and who feels somewhat down in the mouth thereby, is advised by our Ohio friend, Homer C. Price, to take an inventory on January first, as follows: put down first the crop you are going to have next year, and what it will be worth. Then count the number of trees you have and assign a good round value to each. Add the two sums. You will feel like a millionaire.

S. W. F.

Garden and Truck Crops

By GILBERT S. WATTS

LISTEN to this! Tuesday afternoon, January 21st, a real marketing session with talks scheduled from four growers, a Bureau of Markets man, a commission merchant and a chain store man. And at 5:30 a banquet in the Odd Fellows Temple, plate about \$1.50. Banquet address by Mr. Henry G. Marquart of Orchard Park, N. Y., a grower and president of the Vegetable Growers' Association of America.

First thing Wednesday morning will be a period for the answering of questions on insects, diseases and culture with specialists in each line on the floor. Then Dr. Mack of State College will discuss vegetable varieties and C. H. Nissley of New Jersey will tell of the most advanced plant growing methods.

Wednesday afternoon will be devoted to fertility problems. Leading growers will tell how they fertilize. A member of the vegetable department at State College will consider high analysis fertilizers. And a review will be presented outlining what the various experiment stations have found about feeding vegetable crops. Few commercial vegetable growers can afford to miss this opportunity. In addition there is a competitive vegetable exhibit that is open to all. Complete program and premium list may be secured from State Farm Products Show Commission, Harrisburg, Pa.

If you are a vegetable grower, or grow plants to sell, secure a copy of Bulletin No. 214, "Containers for Plant Growing," obtainable from the Pennsylvania State College, State College, Pa. This publication presents new and original material, the results of research with which every plant grower should be familiar.

WITH the swift advances that are being made in the design and manufacture of farm machinery it is a grave responsibility to make sure that one is buying the very best ob-

tainable when making replacements or adding a new machine to the farm's equipment. I know of no better place to work out this problem than on the commercial exhibit floors at the Farm Products Show in Harrisburg. There many makes of the same machine may be compared in detail.

I always have found it an education and a pleasure to spend a liberal amount of time in the machinery exhibit and in talking with the representatives of the several manufacturers. Much is to be learned from these field men who travel and have opportunities to see how operating problems are being worked out in different sections of the country.

THE last of the Old Year is a proper time for recalling and taking to heart the observations and lessons of the past in working out sound plans for the future. Let's look back over our 1929 gardening operations. But this is going to be onerous. If you met with unusual or significant garden experiences please write us in care of Garden and Truck Crops column. We always are glad to receive letters from readers and publish those of general interest; as well as to answer inquiries or refer them to authorities.

AT the beginning of the season there was the leaf lettuce. In my experience it enjoyed just a little less demand than in 1928 and much less than five or six years ago. This is a crop of which it is easy to plant too much. Almost every home and market gardener plants more than necessary. Besides the fast increasing consumption of western "Iceberg" lettuce is having a serious effect. It now is on the market every month in the year. In the five years from 1924 to 1928, inclusive, shipments have increased from 23,000 carloads to over 46,000 carloads. Still many people enjoy some leaf lettuce in the spring. It is our duty to see that they get it

crisp, tender, not overmature, of the highest possible quality.

FOR those who have not tried it, the "Iceberg" lettuce of the grocery store is the New York of the seed catalogues. Best results usually are secured from the first crop in the spring, but in our humid climate with uneven temperatures failure to obtain a large percentage of marketable heads is very common. Thin to a liberal spacing, at least 12 to 16 inches, and do not fertilize too heavily if the soil is very rich.

WE cannot pass over the very dry past summer without paying tribute to the part the overhead irrigation system had in making it one of our best years. The celery, summer and fall lettuce, spinach, beans and late root crops for bunching would have been a sad case without artificial watering.

THE year of 1929 also marks the giving up of the manure supply we have secured from a National Guard cavalry unit for a number of years. A rash decision? Experience indicates not. Some of our fields were too poor to grow satisfactory oats and wheat eight years ago and have now been brought to a state of profitable truck crop production with green manures, commercial fertilizers and lime alone. And oh, how it costs to haul and distribute manure and the weeds that come along.

THE most significant mechanical innovation on Logan Spring Farm in 1929 was a 15-h. p. crawler type tractor. It has proved thoroughly satisfactory in every respect and we must admit shows great adaptability to a wide variety of work and all sorts of operating conditions. It plowed, harrowed, drilled, limed, fertilized and hauled loaded trucks of winter cabbage out of a field that became so swampy it was a sin to take horses into it the last days of October.

A FIT running mate for this tractor was the two-bottom, 18-inch corn-borer plow that was purchased at the same time. You need plow no deeper than with an ordinary plow and it wades right through tomato vines, standing corn, tangled green manures or what have you without annoyance or delay.

INCIDENTALLY this tractor finished a season of severe work without a cent for repairs. At the same time my car rounded out three years of service, all but 31,000 miles, before it became necessary to make the first repair, a minor one. More and more I am convinced that nearly all of the trouble and breakdowns experienced with the better class of farm equipment and motors arises from faulty operation or inadequate maintenance particularly lubrication.

Dry Spraying

Will you inform me the best material for dry spraying or dusting? H. F. N.

THE best materials for this purpose have still to be determined. Dusting is yet in the experimental stage. While progress is being made by our experimenters, it will probably be some years before they are ready to make standard recommendations to the commercial growers of apples and potatoes, though the sulphur-arsenate dusts now have a place in the regular peach orchard schedule.

On potatoes, the copper-lime dusts (monohydrated copper sulphate and hydrated lime) are being listed extensively with seemingly promising results. On apples the most commonly used dusts are the 80-10-10 or the 90-10, the first being a mixture of sulphur, hydrated lime and arsenate of lead and the second containing only the sulphur and the lime. The Ohio Experiment Station reports that the sulphur dusts seem to be improved by adding 10 to 15 per cent of fine ground dry lime sulphur.

Farm Practice

By W. D. ZINN

Mouldy Silage

My silage has mouldy spots in it. I did not tramp it, but once in a while I leveled it down. What caused it to mould?

Could I sow vetch in my wheat in the spring and cut both for hay? At what stage should wheat be cut for hay? J. B. Tucker.

If the silage was kept level there must have been some one in while the silo was being filled, and that was what caused the mouldy spots in the silage. That one stood on the silage until his feet sank down in it. When he lifted his feet to make another step a pocket of air was enclosed as the silage rolled in to fill the hole, and that air thus enclosed caused the silage to mould.

We filled two silos for four years in succession and did not lose a bushel by being moulded after the top was taken off, but we had no one in the silos while they were being filled. We let the silage fall to the center of the silo and automatically roll down as it fell. I have no hesitancy in recommending that method of filling silos.

I hardly think the vetch would make growth enough to pay for the seed if it is sown in the spring in the wheat. If the wheat is cut for hay, vetch is an annual and should be sown in July or August if the best results are desired.

Big Corn Yields

A FEW years ago the writer referred to the fact that a Mr. Gilmore of Licking county, Ohio, had grown 134 bushels of corn on an acre of ground. A few weeks after this was published I received a letter from a farmer in a county adjoining Licking county asking me if I believed such a story. This farmer wrote that he had better corn land than Mr. Gilmore and he had never been able to produce so much corn, neither did he believe Mr. Gilmore grew it.

Now we have a report from Ira C. Marshall, Hardin county, O., in which it is stated he grew 170.4 bushels of corn on ten acres. This is an average of a little over 170 bushels per acre. It should be remembered that this was shelled corn. Wonder what my Ohio critic will say about this report.

I was in Mr. Marshall's community last year and while I heard many commendings him on his ability to grow corn I did hear a few who said they did not believe the corn was grown. There is nothing truer than that a prophet is never without honor save in his own country. I do not have any doubt as to the correctness of this report.

Various Questions

I have a timothy seed I wish to put in corn next spring. This is a clay soil. Some of it is "chanery" soil. I will not have enough manure to cover this field and would like to know how much and what kind of fertilizer to use. Would like a mixed goods.

I wish to apply some phosphate to my wheat in the spring and was thinking of using nitrate of soda. Would it pay to do this or could I add some potash and superphosphate to this and get better results?

I have heard some say you could get better results from the manure if applied to soil a year ahead, that is, the spring before you wish to plow the field. What is your idea on this? How much flax seed should be sown per acre when cut for the seed?

I SUPPOSE the word "chanery" is a local name used for a certain kind of a soil, but it is a new one on me. Webster fails to tell me the meaning of the word, so that part of our correspondent's letter must go unanswered.

Too many of our readers get the idea if they have manure they need no commercial fertilizer. I do not remember that I ever applied a ton of manure that was not reinforced with superphosphate. The reason was that manure is rich in nitrogen and potash and short on phosphoric acid. Our correspondent could do no better than to apply from 300 to 400 pounds of superphosphate all over the ground

and then put 150 pounds of a 4-16-4 goods in the hill or row. I mean, of course, that much per acre.

At some of our stations the application of nitrate of soda has increased the yield of wheat by ten bushels per acre. Much will depend on the fertility of the land, of course. If the land has been heavily manured and has been growing legumes for several years I doubt whether the application of nitrate of soda would pay, but no matter how fertile the land I found that the application of superphosphate paid in securing a stand of clover in the wheat even if it did not benefit the wheat so much.

The application of potash may or may not pay. Our correspondent will know more than I can tell him about potash on his land after he has asked the land whether it will give him a return on an investment of potash. He can do this by applying potash in strips on his farm.

Woodbine Farm never paid for the application of potash except on potatoes and there it gave a 33 per cent increase. The reason for this was that the liquid manure was saved religiously, but potatoes being a quick growing crop and also a heavy feeder of potash could not get enough potash to supply their need. On Woodbine Farm the manure went on the newly seeded meadows first. That gave us a heavy sod to turn down, but that never failed to bring the corn, but this manure was reinforced with superphosphate.

When I was an eight-year-old boy my father grew flax on the farm for the fiber. I do not remember how much seed was sown per acre, but authorities say that for seed from two to three pecks per acre should be sown, but for the fiber from six to eight pecks.

Improvement of Pastures

Would like to hear how to improve pasture land without plowing. I saw in one paper last spring where some farmers in Ohio had used lime and phosphate and sweet clover. Have lost the paper. A. T. Mc.

UNTIL recent years our experiment stations had made no investigations in regard to the improvement of pastures. The idea seemed to prevail that because pasture land was not plowed it would not become exhausted of plant food.

The land is becoming in need of lime more and more each year due to the leaching of lime in the subsoil. All animals grown on the land are carrying away in their bones some lime and a quantity of phosphorus. This operation has been going on for more than a half century on many fields and the land has become short on these elements of plant food. The necessary treatment is very evident, the application of these things to the land.

The writer has always recommended the harrowing of the land and reseeded with timothy, redtop, orchard grass and red and alsike clover and the application of lime and two hundred pounds of superphosphate per acre, but the Ohio Extension Department has received marvelous results by applying two tons of ground limestone and 40 pounds superphosphate per acre. The ground was not harrowed, neither was any seed sown. The increase from this kind of treatment was over 400 per cent. Pennsylvania, Ohio and West Virginia Experiment Stations all recommend similar treatment of pasture lands and in each state the results have been very satisfactory and profitable.

There is scarcely any subject connected with farming that is of greater importance to farmers than that of improving their pastures. On most farms are many acres of grazing land that are not producing more than one-fourth they are capable of producing. It would not cost the farmers much to try this on a few acres.

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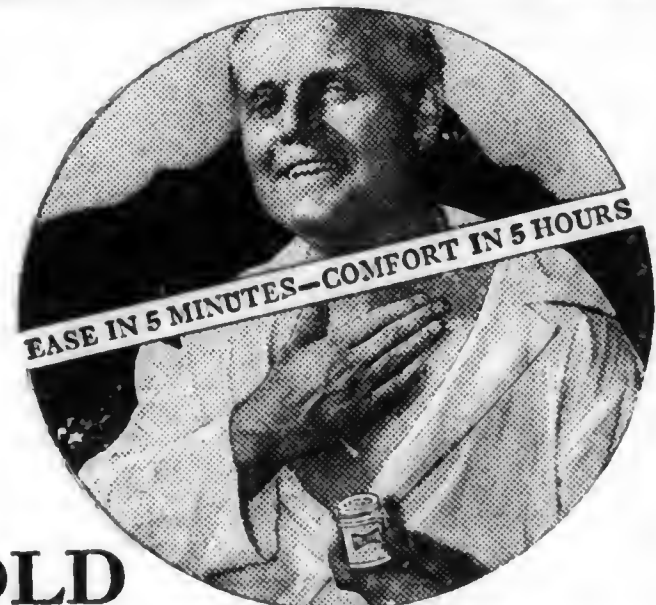
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THE YOUNG PEOPLE

My Favorite President

By Margaret Miller

I WOULD like to write my story of George Washington, so appropriately called the "Father of his country," who sacrificed his personal comforts and, in part, his wealth, to free a liberty loving people from tyranny, and so wisely launched the Ship of State on its journey through the centuries.

I would, also, like to write of Woodrow Wilson, the idealist and, no doubt, the greatest scholar and gentleman ever president of our republic, whose chief ambition to secure world peace was frustrated because of biased partisanship.

But I prefer to take for my subject one who, I think, was the most typical American.

Born in an obscure log cabin, reared in the school of adversity and poverty but by dint of persistent application and a healthy optimism he surmounted a commonplace heredity and an unenviable environment by a proper development of a noble self.

Abraham Lincoln never espoused a cause for the sake of popular opinion but only upon its merits and thus he wrote his name into the hearts of the common people indelibly for all time as a real statesman.

He wisely conducted the affairs of government during the greatest crisis of our country's history and succeeded in successfully writing finis to the doctrine of State's Rights.

Sadly, at last he was compelled to sacrifice his life to free an enslaved people, and now he belongs to the ages.



Hope Lehigh, Pennsylvania

The Editor Answers

WALTER SCOTT of New Jersey, who asks for several nice games for a birthday party on January 11th. Our space is limited, but here are a few:—

To Start the Party

Have a boy or girl act as Old Lady in the Shoe. Give him a bed-room slipper. The other children are to touch something wooden, the wall, chairs, etc., and they must always keep moving. The old lady, with the slipper, proceeds to tug. She has a base. When she has tagged three children and taken them to the base, which is the Old Shoe, then the first one tagged becomes the old lady. The others are freed and the game progresses.

On a Line

String a dried prune or raisin on a twine. Be sure the string is clean. Prepare a number of these, with the



Mary M. Mowry, Pennsylvania



Gertrude Wilson, New York
First Prize

fruit in the center, and about 18 inches of twine on either side. Then seat the guests flat on the floor with the soles of their shoes together. At a signal the children are to start to chew the twine into their mouths, not using their hands. One has one end of twine, the other, the other end. The person who reaches the fruit first may have it. Stick candy may be substituted for the fruit.

The Drawing Lesson

Distribute paper, pencils and erasers to the players and see that they are provided with a magazine or something stiff to rest their drawing papers on. The leader should provide himself with a picture which he has cut from a magazine and which he carefully conceals from the crowd. Very carefully and slowly, step by step, he describes this picture to the players, and just as carefully the players try to draw what he is describing.

His description and manner of giving it might sound something like this: The picture I have before me is almost square on the space it occupies, although it is not enclosed in a square frame. Directly in the foreground is the oval top of a table, presumably a dining table, set with a large scalloped dolly which does not come to within several inches of the edge. Back of the table and to the left of the picture, is a man examining little Jim's report card which he holds in his left hand while his right grasps a fork which is touching the buckwheat cake on his plate. He is dressed in soft white shirt, large patterned tie, etc."

This game causes a great deal of fun and the laughter is apt to become hilarious when the finished drawings are pinned to a sheet hung across an open doorway and a vote taken for the most successful attempt.

The Rules

Kathryn Unruh of Delaware, who asks about the rules of our page. There are no rules, just send in as many contributions as you like. We like to hear from all our readers about their pets, the books they read, or anything they think will be of interest to others. Watch for the new contests every month.

Patriotic Question

Dorothy Bain of Pennsylvania. The answer to question No. 9 in List No. 3 of the Patriotic Contest is "The Ohio River."

Patriotic Contest

PRIZE WINNERS

FIRST prize in this contest will be sent to Margaret Miller of Pennsylvania. This prize is a beautiful American flag which we hope Margaret will like. Her story "My Favorite President" appears elsewhere on this page.

Book prizes will be sent to the following: From Pennsylvania, Dorothy M. L. Cromer, Elverda Acre, Dora B. Foster, S. Thompson Watts, Max Kline, and John F. Rumler. From West Virginia—Ralph Hartley, Gay-

nell Casto, Ruth King, Luella Taylor and Myrtle Moore. From Maryland—William Wonderly and Wilbur Hoopgardner; and Gertrude E. Wilson of New York.

Then the self-portraits for which we asked recently are also to be found on this page. The picture receiving first prize goes to Gertrude Wilson of New York State. All the others whose portraits appear have received gifts from Pennsylvania Farmer.

ALL ABOUT KATE

Each answer is composed of one word ending with the letters "e-a-t-e", for instance: Kate is a good pleader (advocate).

1. Kate is a good pleader.
2. Kate judges judicially.
3. Kate is apt to use other people's money wrongfully.
4. Kate is very frail.
5. Kate sometimes gets out of joint.
6. Kate makes everything double.
7. Kate loves to teach.
8. Kate takes out ink spots.
9. Kate helps people out of difficulties.
10. Kate is good at constructing.
11. Kate gives a pledge of security.
12. Kate sometimes invokes evil.
13. Kate is perplexing; hard to understand.



Pauline Kleckner, Pennsylvania



Broadus Butcher, West Virginia

TRY YOUR LUCK

Last week we announced the January contests—a letter on "How I Spend My Spare Time" and a cartoon on "Why Fathers Grow Bald." Use white, unruled paper for your picture. Get in on these interesting contests and win one of the ten prizes offered. Contests close February 1st.

Our Young People's page is made up of contributions from readers. Send in a picture for the little folks to color, a story, or write about your pets. Every week prizes are sent. Why not get yours?

Send your contributions to Young People's Editor, Pennsylvania Farmer, 7301 Penn. Ave., Pittsburgh, Pa.



Grace Wallace, Pennsylvania



Everett Craddock, West Virginia



Flora Smith, Pennsylvania

Little Folks' Corner



MOTHER'S JOB IS THE HARDEST

Drawn by Hilda Hiddleston, Chester county, Pa.

Poor Mother! Perhaps if you try hard you can take away that tree-look with your crayons or paint. See what you can do. The editor has twelve paint sets in hand for the best colorings.

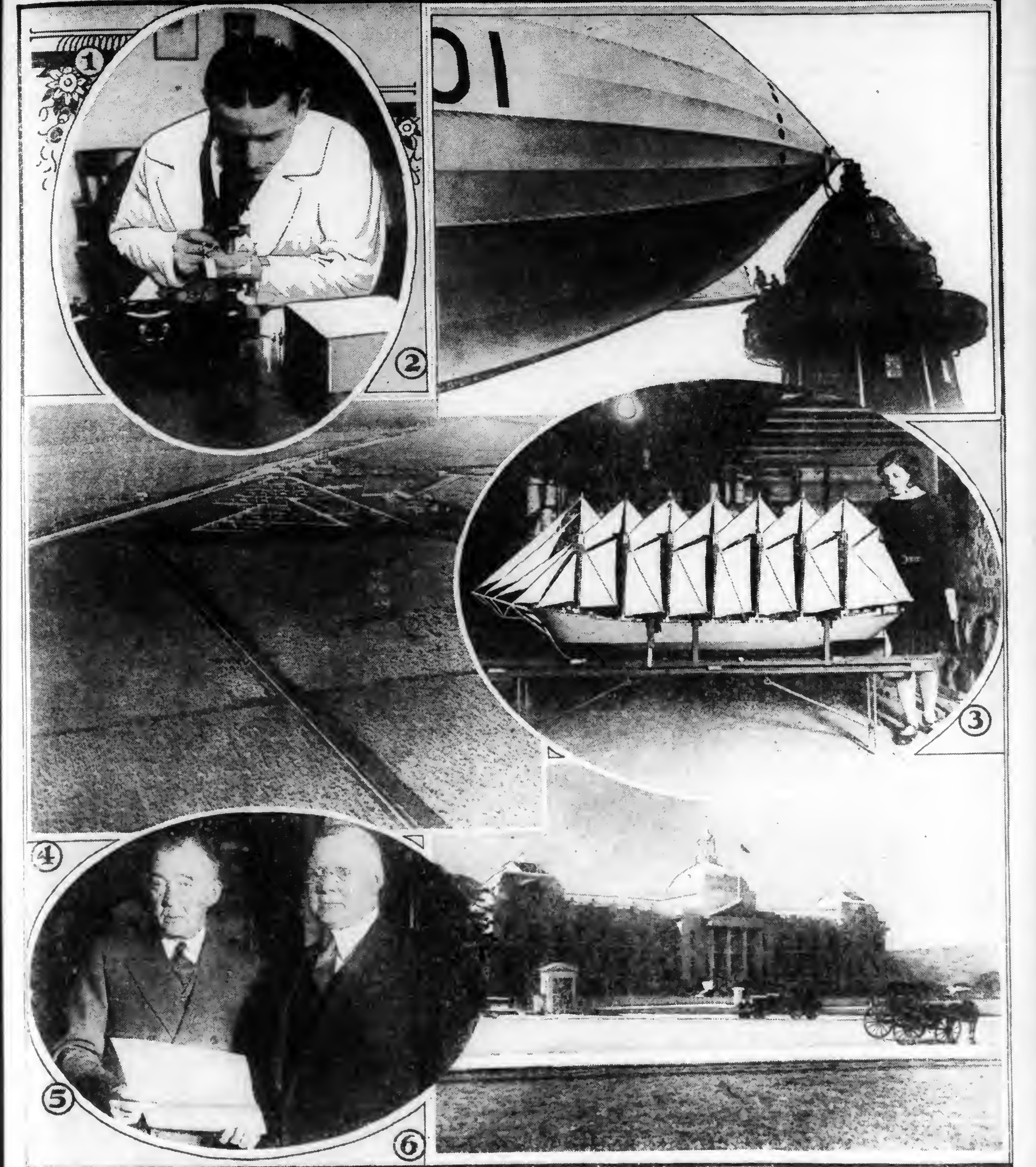
Send your letter to Little Folks Corner, Pennsylvania Farmer, 7301 Penn Avenue, Pittsburgh, Pa.

Colored by

Address

R. F. D. Age

PASSING EVENTS IN PICTURES



(Copyright by Universal & International)

1. Chicago, Ill.—Dr. Isadore S. Falk, professor of hygiene and bacteriology at the University of Chicago, who has discovered and isolated the germ responsible for influenza. This find, the most important yet made in the fight to prevent influenza epidemics, is the result of Dr. Falk's six-year effort to detect which of dozens of possible bacteria might be convicted of causing the disease.

2. Cardington, England.—An unusual photo. Some of the members of Parliament walking across the gangway from the mooring mast to the "R-101" here. Owing to weather conditions, the trip was postponed for the second time. A mast similar to the one in the photo will be erected atop the 85-story Empire Trust Building in New York City, according to Al Smith.

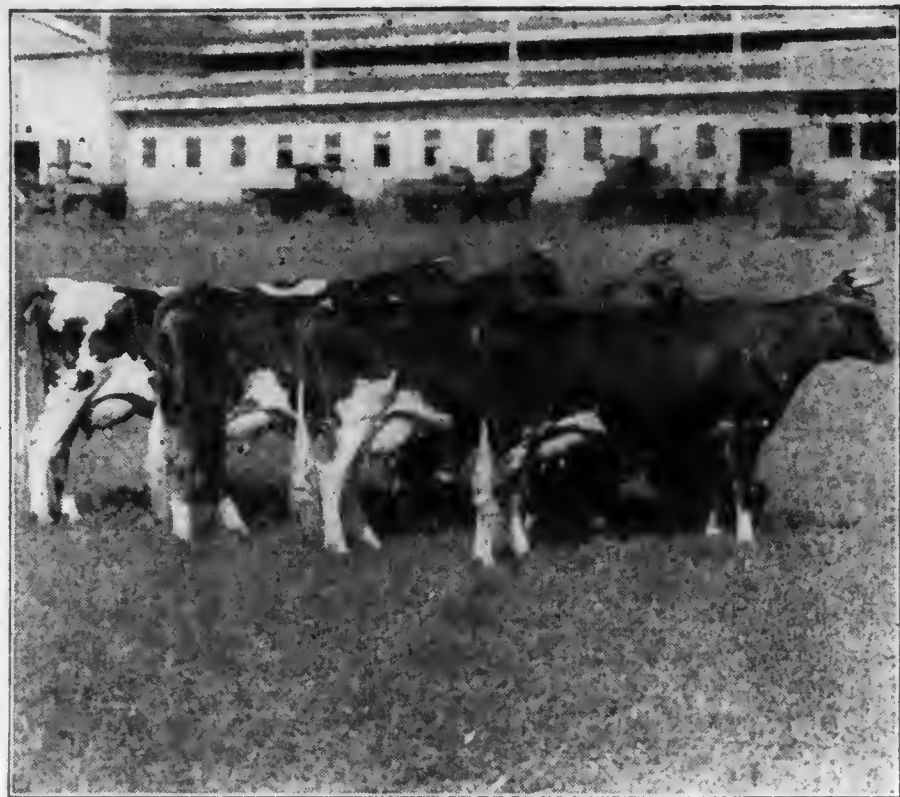
3. East Boston, Mass.—Miss Tanner, daughter of constructor of the world's largest ship model, Elmer Tanner, standing beside her father's masterpiece, an exact replica of the ill-fated "Thomas W. Lawson," the only seven-masted schooner ever built, which he will accompany on its final voyage to the Science Museum at South Kensington, London.

4. Miami, Fla.—The first air photo of what vast fields of sugar cane are doing to the famous Everglades of Florida. This section of fields, town and mill is a few miles from Canal Point on Lake Okeechobee. Javanese-Himalaya cane here reaches a height of from 20 to 22 feet. The soil in this reclaimed district is said

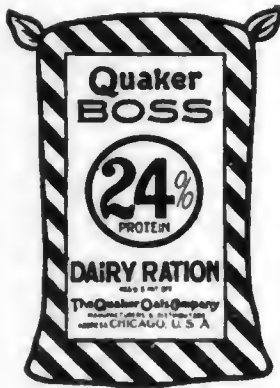
to be as black and fertile as that in the valley of the Nile.

5. Joseph R. Grundy, right, was installed recently as a member of the United States Senate from the state of Pennsylvania, succeeding William S. Vare, who was rejected, photographed with his colleague, Senator David A. Reed, left, at Washington shortly after he had taken the oath of office.

6. Port-Au-Prince, Haiti.—Photo shows an idea of the quiet that prevailed throughout Haiti, which the cruiser "Galveston" with its regular marine detachment of fifty men found when they arrived—a peaceful scene in front of the famous Palace of Justice here.



Prize winners and producers at Emmadine Farm, Hopewell Jct., N. Y.



Feeds that fill Milk Pails and Pocket-books!

WISE dairymen have learned that the secret of increasing milk profit is in intelligent feeding. They feed Quaker Dairy Ration because this feed goes farther and makes more milk—thus getting maximum production and maximum profits.

Quaker 24% Dairy Ration is recommended as a highly efficient protein concentrate, rich in essential minerals. It makes an ideal ration for your own blending and supplements splendidly your own roughage. There's really no feed like it to maintain your herd in vigorous, profit-producing condition throughout the Winter.

You'll find your cows relish it. You'll also discover to your delight that your feed investment is less. It means money in your pocket-book to know about these advantages which come from using *proved, tested, scientifically blended* Quaker Dairy Rations. See your Quaker Dealer at once.

Quaker Sugared Schumacher—is the complete carbohydrate feed; combines perfectly with any Quaker high protein concentrate (24%, 20% or 16%). A choice feed for all young or dry stock; an entire grain ration for horses, steers, lambs and swine.

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Farm and Dairy

By L. W. LIGHTY

THE farmer's occupation requires constant thinking and planning, but when the rush of work is on and the days are long physical exertion is so great that often we have not much energy left for mental work. With the cessation of field operations we find time to meet with our fellow workers, consider and endeavor to correct our mistakes and improve our successes.

Progress and improvement in some lines of effort have been more spectacular than in farming the last half century, but I doubt if any are more substantial. I knew the farming in several counties in two states then and it was my occupation. Two score years ago I was acquainted with much of the farming in this state and all the adjacent states and because I was in the game I can see the phenomenal revolution in thought and in action.

Then in the rural community there was a character known as the "book-farmer," the butt of numberless jokes. His origin was some would-be educated misfit who blundered a spell and then failed. Education and farming had no connection; in fact higher education was inimical to good farming. Outside of very backward communities this is a thing of the past. The younger generation of farmers has a great desire to secure information and training that enables them to think logically and plan practically and efficiently. The general existence of this desire is forcefully brought to me by the number of inquiries coming to me relative to reading or correspondence courses or the best books on the several lines of farm effort.

The Five-Foot Book Shelf

Measuring books by the linear foot never appealed to me. The footage of my books on agriculture is more than ten times five, but I suspect I could pack the gist of it all as far as the practical farmer cares into about three feet of shelf. I will mention some of these books for the inquirers who tell me their time is limited and they want the best in the briefest form.

The fertility or productive power of the land is of course the foundation of all successful farming. Information that helps us to build and to maintain this condition on our farm is of the first importance. The outstanding book in this division is "The Fertility of the Land," by I. P. Roberts. A very close second is "Crops & Methods for Soil Improvement" by Alva Agee. These lay down fundamental truths in an impartial manner, briefly and understandingly.

Then because of the large use we make of commercial fertilizer and the great amount of money it costs, it pays us to have a pretty clear understanding of the nature and function of these purchased plant foods and how to use them most profitably and economically. One of the best, if not the best book in this phase of soil improvement, is "Fertilizer" by E. B. Voorhees.

Whys and Wherefores

For the man who loves to get behind the whys and wherefores, who loves to dig down to the foundation of which this science is built I will say add to the above a three-volume work entitled "Agriculture" by F. H. Storer. But here you have about 1,800 pages containing some 700,000 words. It is exhaustive and it is interesting. Indeed to me it was fascinating when I read it the first time. It is a gold mine for the student farmer.

With minor exceptions animal husbandry is an inseparable part of the farm management. When I was with the tobacco growers, potato growers, fruit growers and others, some form of animal husbandry always was an important element. Hence the next

books I would place on that shelf to use would be "Feeds and Feeding" by Henry & Morrison, and of equal importance would be "Principles of Breeding" by E. Davenport. Both of these works are pretty extensive and exhaustive but reliable and always helpful to the practical man. To these two it is well to add "Types and Breeds of Farm Animals" by C. S. Plumb. The next book would be "Agricultural Bacteriology" by W. H. Conn. Every man and woman on the farm needs information relative to the microscopic life we have to deal with. Another book I found of great value is "Physics of Agriculture" by F. H. King. All these books will rest on a 20 inch shelf and need not be packed. From this point we need books along specialties whatever we practice on the farm.

Without Pasture

I am much interested to know if it is possible to feed a dairy cow the whole year on solid feed such as silage, hay and grain, or any good feed, not feeding any summer pasture. Please answer the following questions as correctly as possible. (This cow to be any type of good cow that will give 100 gallons of four per cent milk or better.) Will a cow eat a good grade of silage the whole year? How much silage will it take to feed her? How many tons of hay or roughage to feed her? How many tons of grain to feed her? To your best judgment would it be possible to run a one-year rotation of corn that is to be raised for silage in the same field year after year if one used plenty of good commercial fertilizer and manure? Also sow something in the last cultivation to turn down for a green manure? A. M. Custer.

YES, it is possible to keep cows year after year on grain, hay and silage or green crops. The Pennsylvania State College herd has been kept in this way for thirty years or more, simply for the reason that no pasture is available which is near enough to the dairy barns to make its use practical. This does not mean that a dairy cattle feeding system without pasture is the better method, but it can be used where no pasture is available. However, some green crops are cut and fed to a moderate extent during the summer. These include green alfalfa, soy beans, green corn, etc.

A cow will eat about ten pounds of hay daily and 30 pounds of silage per thousand pounds of live weight. This would mean a ton and a half to two tons of hay per cow per year, and three to four tons of silage. The cow producing 100 gallons or 8,000 pounds of four per cent milk should have one pound of grain for approximately three and one-half pounds of milk. This would mean one and one-fourth to one and one-half tons of grain per cow per year.

It would be possible to raise corn for silage in the same field for a few years by the use of commercial fertilizer, manure and green manure. Yet it is doubtful whether it would be advisable to attempt this practice for a considerable period of years. It is true that at the Rothamstead Experiment Station in England wheat has been raised continuously on the same plots for a period of over 80 years with the use of commercial fertilizer and manure, yet the ground has become very much infested with weeds. The experience of farmers in central and northwestern United States where wheat was raised continuously year after year led them to adopt a crop rotation system.

You could perhaps raise corn in the same field successfully for a period of three or four years by using commercial fertilizer, barnyard manure and green manure, but it is probable that at the end of that time you would find it advantageous to grow some other crop in the field for a year or two. A. A. Borland.

Proved on your Research Farm



Larro Dairy Ration has been improved. Your Larro Research Farm has scored a noteworthy triumph. The feed which for seventeen years has been the standard by which all other feeds have been judged is even better than it was before.

The phrase "As Good As Larro" must now take on a new meaning.

The new Larro by virtue of higher milk production has a greater feeding value than the old Larro by more than \$3.00 a ton, based on present values for feed and milk,—\$3.00 a ton more profit for Larro feeders, and the improved Larro costs no more.

This improved Larro was not a stroke of chance. For more than seventeen years, the Larro Research Farm has been at work checking and testing feeds. Theories about proteins, vitamins, minerals and roughage have been tested by actual feeding trials under practical farm conditions in more than one hundred different formulas. The improved Larro has been under test for five years against many other combinations of feeds. Under long and short time tests and under many varying conditions its greater feeding value has been proved beyond question.

The improvement is not sensational—no feed could be sensationally better than the old Larro—but \$3.00 a ton added to the high profit over feed cost that Larro feeders have already been getting is a notable accomplishment.

Where tests are made under actual farm conditions.



Each cow is fed individually.

plishment. As a uniform health-building feed the new ration is the same as Larro always has been. The Larro Research Farm is your farm. It is working for you continuously, searching for better feeds but in no case will a change be instituted until it has been proved definitely to be a change for the better.

We repeat our promise of many years' standing. **The Larro Formula will not be changed unless a better one can be found. If it is changed you will be told about it. The quality of Larro will never be lowered as long as Larro is made.**

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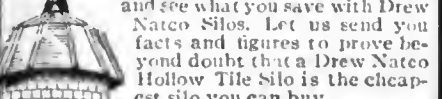
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A BRACE OF TWINS

This is Miss Hattie Judy of Pendleton county, W. Va., and her four twin calves. They are worth \$20 apiece, making a profit on two cows of \$200 a year.

—C. P. Warner

Cow-Testing Ass'n Reports

Canton
THE Canton Cow-Testing Association, Bradford county, Pa., closed its sixteenth year November 1, 1929, with 19 whole-year members and two part-year members. The total number of cows was 306. The results of the Association for the sixteen years is as follows:

Year	Lbs. Milk	Lbs. Fat
1913-1914	6052	261.0
1914-1915	5783	260.0
1915-1916	5843	256.7
1916-1917	6210	264.0
1917-1918	6163	262.2
1918-1919	6539	296.8
1919-1920	6550	311.2
1920-1921	7302	318.0
1921-1922	6859	286.9
1922-1923	7576	310.8
1923-1924	6803	288.3
1924-1925	7037	296.1
1925-1926	7455	313.4
1926-1927	7671	322.0
1927-1928	7435	309.4
1928-1929	8151	332.7

Thirteen herds with an average of five or more cows exceeded an average of 300 pounds of fat. Complete list follows:

Owner	Breed	Milk	Fat
W. F. Bohlayer	R.H.	11385	452.4
R. H. Fleming	R.H.	11675	418.5
Emmer Pepper	R.H.	11559	403.7
R. G. Williams & Sons	R.H.	10729	400.7
Earl Wilcox	G.H. & G.J.	9243	372.1
H. S. Wilcox	R.H.	7934	360.1
G. E. Beach	R.H.	9245	338.5
Clarence N. Spencer	R.H. & H.	8411	319.0
Ralph Jones	R.H. & H.	5784	317.4
J. C. Fleming	R.H.	6701	314.4
Samuel Isaacs	R.H. & H.	8772	314.1
H. G. Wright	R.H. & G.	6439	308.7
G. H. Moody	R.H.	8163	301.0

*High herd in milk.
*Second high herd in milk.

C. W. Beach, R. P. Reber, Tester, County Agent.

Troy
THE Troy Cow-Testing Association of Bradford county, Pa., closed its fourteenth year November 1, 1929, with 14 whole-year members and two part-year members. The total number of cows was 266. The results of the Association for its fourteen years are as follows:

Year	Lbs. Milk	Lbs. Fat
1913-1914	6052	261.0
1914-1915	6255	272.4
1915-1916	5920	266.0
1916-1917	5862	270.0
1917-1918	5843	264.1
1918-1919	6702	276.3
1919-1920	6614	276.4
1920-1921	6975	294.7
1921-1922	6748	291.3
1922-1923	6015	270.2
1923-1924	6317	266.6
1924-1925	7132	278.3
1925-1926	6631	268.9
1926-1927	6590	274.3

Three herds with an average of five or more cows exceeded an average of 200 pounds of fat. Complete list follows:

Owner	Breed	Milk	Fat
Edward Wolfe	R.H.	8285	424.6
John Lewis	R.H. & J.	10435	395.1
"High herd in milk."	R.H. & J.	6363	311.3

*High herd in milk. Wm. I. Foster, 8519 lbs.

H. F. Ayers, P. N. Reber, Tester, County Agent.

Cowanessque Valley
THE Cowanessque Valley Cow-Testing Association finished its fifth year November 1, 1929, with 13 whole-year and eight part-year members. There were 421 cows in the Association during all or part of the year. The results for the Association for the five years are as follows:

Year	Av. No. Cows	Lbs. Milk	Lbs. Fat
1925	299.35	7113	280.0
1926	426.50	7047	254.0
1927	142.50	8086	281.0
1928	205.51	7587	281.0

Pour herds with an average of five or more cows exceeded an average production of 300 pounds of butterfat. A complete list of these herds follows:

Owner	Breed	Milk	Fat
Ivan Keltis	R.H.	9992	328.0
Earl Robbins	R.H. & H.	8916	318.0
Herbert Seeley	R.H. & H.	7804	306.0
Earl Peters	R.H. & J.	7198	300.0
Neil Stranahan	Paul P. Korber, County Agent		

Cumberland County
COUNTY Dairy Herd Improvement Association finished its tenth year September 15, 1929, with 31 members. The records show that there were 54 cows in the Association during all or part of the year.

Mr. A. A. Raudabaugh has been tester in the Association since it started and he is now on his eleventh successive year, and holds the record in Pennsylvania Dairy Herd Improvement Associations as the largest number of successive years in one association.

Many of the members' herds have increased their average production considerably year by year and Mr. V. Otto's herd has an average of 12,624 pounds of milk and 423 pounds of fat for the ten successive years. This is the highest average production per cow of any herd in United States.

Mr. Raudabaugh has drawn the following diagram in connection with his work as a tester:



The results for the ten years' work in the Association are as follows:

Year	Av. No. Cows	Milk	Fat
1919-1920	276.20	7325	3.3
1920-1921	312.17	8355	3.4
1921-1922	278.64	8578	3.6
1922-1923	293.08	8713	3.6
1923-1924	266.67	9779	3.6
1924-1925	253.68	8990	3.6
1925-1926	278.34	9777	3.5
1926-1927	311.58	9714	3.5
1927-1928	269.60	9317	3.7
1928-1929	422.83	9907	3.7
Incr. ten yrs.	146.63	1982	4

Sixty-seven cows produced over 400 pounds of butterfat. The complete list is too long to print here.

W. I. Galt, County Agent

Veterinary

By Dr. J. F. SHIGLEY

CALVES DIE

I have a bunch of calves which have something like the bloody murrain. Have lost two of them and one more has the same thing. Droppings at first are black, then get thin and in two or three days turn to blood. In three or four days the calves die. W. G. N.

THIS appears to be an infectious disease and its treatment will depend on the correct diagnosis. Call your veterinarian for diagnosis and in the meantime separate the well and affected calves to prevent further spread.

LAME MARE

I have a mare 19 years old that is lame in her front foot. Her ankle is hard, seems swollen. C. A. Kough.

PROVIDED that you have correctly diagnosed the point of lameness, you can apply heat with warm water; use a liniment or a bandage for support. The animal should be allowed to rest in order to allow the affected part to recover.

SCOURS

I have a bunch of calves that have the scours; also some have a cough. Otherwise they are thrifty and growing. A. C. H.

SCOURS that appear early in life may be due to an infection that can be controlled by careful attention to sanitary measures and through the use of drugs. Anti-calf scour serum may be used on these cases to advantage.

As the calves reach of one month or more, scours is more often due to irregular feeding, overfeeding or a combination of these factors with an intestinal infection. Regularity of feeding and watering, restriction of diet, clean quarters are fundamental in control. Small doses of castor oil may be administered. Inasmuch as scours may be a symptom of certain diseases, it is advisable to call your veterinarian. The advice regarding the cough would vary depending on the age of the calves and this was omitted in the letter.

PROBABLY GARGET

I have a sick cow. I shipped a calf about three weeks ago. This cow was giving eight to ten quarts per milking. Last Thursday morning she failed to give a quart. Three tests were made and one was hard. I called my neighbor and he gave her one pound of salts and ginger. Saying she had indigestion from eating sweet potatoes. Later I gave her another pound and she then her bowels are just runny. I am rubbing her udder in hot water and bathing in liniment. L. R. M.

THIS was probably a case of garget from the start and two pounds of salts is too much for such cases. It will be necessary to tempt this cow's appetite with various foods to bring it back. Continue bathing the udder with warm water and milk the cow every two to three hours. You would do well to consult your veterinarian about the case and secure from him a tonic best suited to bring her back on feed promptly.

DIFFICULTY IN BREATHING

Can you give me any information about a heifer that is due to freshen soon? She took what I thought was a cold about six weeks ago and she still continues to blow some and have difficulty in breathing. Apparently it does not hurt her. She has been tested twice for tuberculosis. W. S. H.

THIS may be due to a complication of a cold and pregnancy. It is possible that it may be due to pregnancy alone. During the latter part of pregnancy the abdomen is so full that the breathing space is greatly reduced. After freshening this cow will probably be normal again.



This Cow Produced 728 lbs. of Butter-fat in 305 Days

THIS is a comparative study of two succeeding lactations of a high-producing Guernsey cow which tells a very interesting story.

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Per Running Foot

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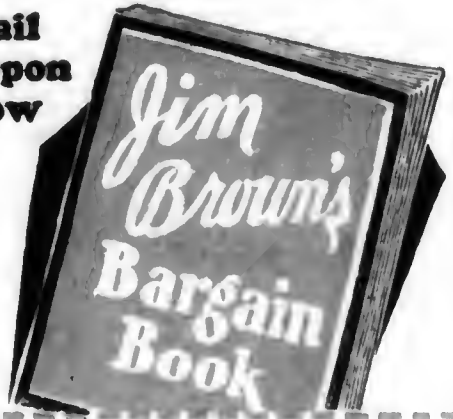
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PENNSYLVANIA FARMER

Published Weekly

Established 1877

Consolidated with PENNSYLVANIA STOCKMAN and FARMER

January 11, 1930



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WHEN you buy your next "B" battery, you will want to choose the one which gives you longest use at least cost. That means Eveready Layerbilt.

The new Eveready Layerbilt "B" Battery has been developed to bring greater economy to battery users. Because it is made of flat cells, it will last from 25% to 30% longer than the cylindrical-cell battery of the same size. There are no waste spaces as is the case in cylindrical-cell batteries. The flat cells fit together tightly, giving you more active material for your money.

Furthermore, an ordinary "B" battery assembled of separate, independent cells (be they round, square or any other shape) needs 60 solderings and 29 fine wires, making 89 places where trouble can develop. The flat cells in an Eveready Layerbilt, however, make connection with each other automatically. Only five solderings are needed, and only two broad connecting bands, each $\frac{3}{4}$ inch wide. This means the utmost in reliability.

Eveready Layerbilts come in two sizes: Medium No. 485 (\$2.95) and Large Size No. 486 (\$4.25). Either costs only a few cents more than the cylindrical-cell Eveready of the same size and will last from 25% to 30% longer. Look for the Eveready Layerbilt name on the label.

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Tuesday Night is Eveready Hour Night. East of the Rockies—9 P. M. Eastern Standard Time, through WEAF and associated N. B. C. stations. On the Pacific Coast—5 P. M. Pacific Standard Time, through N. B. C. Pacific Coast network.

EVEREADY Radio Batteries

Farm Facts and Fancies

By ALVA AGEE

IN the game of roque some players find many occasions to offer an alibi when shots are unsuccessful. It was a flaw in the boundary wall that prevented the ball in its rebound from making a hit, the ball traveled a straight line nearly the length of the court and then, of its own volition, curved and made a miss—anything except fault in the player.

If some fault occurred before the ball left the mallet, and an alibi is out of the question, responsibility is accepted only half-heartedly. The habit doesn't pay, and I have tried to drop it, but it is a frailty tied up in all human affairs.

Nature is headstrong, but about half the time a partial crop failure comes because the land had not been drained, or it lacked organic matter to hold moisture during drought, or seed was not known to be dependable, or a half dozen other "ors." It is not a comfortable or comforting view to take, but it is better to assume too much responsibility for failure than too little.

A Perfect Alibi

The control of rainfall is beyond us. This morning I was talking with one of the U. S. Weather Bureau staff located in San Diego. The year of record begins July first, and in the last half of 1929 the rainfall has been twenty-six hundredths of an inch.

Southern California has much in common with Palestine in respect to climate, and it knows exactly what Biblical writers meant by "the first rain and the latter rain." The former is due in November, but failed to come. The latter comes in the fore part of the new year, and then there is little rainfall until the next November. The early rains help to fill the storage reservoirs, and start the grass on the immense cattle ranches.

This winter there is little feed on the ranges. A quarter of an inch of water in six to eight months affords an alibi no one can question, and the serious matter now is whether the "latter" rains will come early in 1930. The Northwest had its drought broken by a deluge of water, but up there the normal rainfall is relatively heavy. The eastern farmer is not given to bragging on his particular part of the country, but he has a good deal to brag about.

Manure on Poor Land

Mr. Zinn has told us that he could have built up his farm in a much shorter time if he had understood the value of fertilizers and not depended chiefly on livestock. We know he is right, and we can accept the statement without marking down the value of manure as low as many scientific tests indicate.

When we compare manure with the right commercial fertilizer as a source of plant food for a crop, the value per ton is lower than we supposed years ago, but there is surprising ability in a light top-dressing of manure to get a catch of grass that is not shown by an application of fertilizer containing an equal amount of plant food. This effect of manure is known by most farmers. When we point out this effect to a scientist he talks to us about bacteria in the manure and bacterial action stirred in the soil. Doubtless he is right, and anyway the man who says "bacteria" always has the best of the argument because the other fellow has nothing he can say in reply.

The point that is important, as I see it, is that for a poor soil manure has a value not shown by analysis. The man who feeds livestock and top-dresses poor parts of fields with the manure before seeding down for a sod gets more per ton from it than the value usually placed upon it by those who test manure with fertilizers as a source of plant food for crops growing

in soil that is in pretty good condition.

Government Control

The telegraph, cable and radio people want the Congress to authorize a combination, and propose that the government regulate the combination. We now have the advantages of government control of railroads without the responsibility of ownership. All along the line competition is being dropped for gain in efficiency.

It was not many years ago that competition was regarded by us as a cherished possession that must be guarded by all means. Now we criticize the waste that necessarily attends competition and want service and goods in maximum amount and minimum cost, and that means mergers if only they are controlled.

I should keep up to date, but when one was trained to regard free competition as the birth-right of the American, it isn't easy to turn readily to the new attitude. I reckon the public must be right in the matter, and mergers do increase efficiency and raise the level of living, but the price we pay is much surrender of individual rights and opportunities and increased dependence upon the power of government officials.

We are going fast; if it is in the right direction, that is all to the good. Of course I have mentioned this before, and hope to do so again, because we should realize fully just what we are doing.

Needs and Wants

A most satisfactory present was a gift I made to myself. It is a carpenter's vise. I now have no particular use for it, and no friend would have selected it for me, but there was the hang-over in my mind from past years that it was among my wants, and that it would be a mighty handy thing to have around if any need for it arose. I sold one once along with the building to which it was fastened, and ever since I have wanted another but could not justify the purchase on the score of need. I did not think in a straight line about the matter, and it is worth mention because some others make the same mistake. It is entirely easy to get more out of a small sum of money in satisfying a want than a need.

When wives felt more dependent on husbands financially than is now the rule I learned by chance that there was a hardship in any accounting because one might be glad to ignore some need so that something wanted could be got in its stead. Needs of many sorts are a matter of convention, and decision is made by the general public. That applies to clothes, furniture and even kinds and quality of food. What others do we accept as necessary for us.

Wants, on the other hand, are a personal matter, and if one prefers to pass by something listed by convention as a need, and instead to meet a harmless personal want no explanation or excuse should be necessary. It is on that basis that I now own a carpenter's vise. The fact that I expect to find occasional use for it is wholly aside from the mark. I am wishing that people who are in a somewhat dependent financial relation to others could have the benefit of this view.

THE COVER THIS WEEK

ROGER WILLIAMS' Church, Providence, R. I., is the oldest Baptist church in America. It was founded by Roger Williams in 1638. The present building, shown on our cover this week, was erected in 1775. Commencement of Brown University has been held here since Revolutionary days.

Glass Houses

By FRANK K. RICH

"TAKE a man that's always lookin' out for blemishes in other people," Caleb Peaslee observed, "and it stands him in hand to be a mite careful of his own actions—safer way, you know. Wouldn't you say so, Hyne?" He partly turned his head toward Deacon Hyne, to give more force to his question.

"Anybody'd say so," the deacon grunted. "Who've you got in mind this time? Me?" He showed a degree of truculence that caused Caleb to raise a protesting hand.

"Not a mite of it, Hyne," he assured his companion. "I was jest thinkin' of 'Lisha Chadwick; he stopped here a minute this mornin' and on-burdened his mind c'ncernin' the shortcomin' of his wife, and the whole proceedin' give rise to thoughts in my mind that I had some idea of tellin' you about—if it happens that you'd care to listen to 'em, that is to say?" He darted a questioning glance at the deacon.

The deacon, his apprehension allayed, signified his willingness to listen.

A Wife's Faults

"I was out in front of the house," Caleb began, "paintin' the fence; my wife's been deamin' me to git about it for a month, I guess, so this mornin' I went to work on it. I'd jest got it cleverly finished and set the paint back inside the gate when 'Lisha come along. He had his lips pouted out and a kind of scowl on his face—signs 'nough that I was goin' to be treated to some kind of a lecture, 'less I headed him off; but I made up my mind to listen and let him git shut of his grievance.

"Sure enough, he come to a halt by the fence and hardly give me the chance to pass the time of day with him b'fore he begun.

"My wife's an awful heedless person," he says, lookin' at me 'sif I was in a measure responsible for her actions; not that he really thought so, but he looked it. 'I talk to her and c'rect her,' he says, 'and for all the good it does, seeminly, it might be a sparrow chirpin'.' he says, bitter enough.

"Well, well!" I says, soothin' him to tote him on. 'What's Luella been up to now?' I asked him.

"It ain't alone now," he says, pettish-like. 'It's day in and day out, day after day and time after time. She does things without ever lookin' ahead to see what the outcome'll be—careless things,' he says, 'that lead to trouble for her or somebody else—most of the time trouble for me,' he complained.

Careless Every Day

"I couldn't begin to tell you the number of things she does wrong in the course of a week," he says, "but I'll say this: that never a day goes by that I don't have to speak to her about some careless thing she's up and done—leavin' a door open so the flies come in, or settin' somethin' down on a chair where a person'll git onto it if they don't watch sharp, or somethin' else of that nature," he says. "Why'n't you look at a chair b'fore you seeddown in it?" I says. "That'd take care of a part of your troubles," I pointed out to him.

"A chair is s'posed to be a thing to set in," he snaps out, "and anybody but a woman'd take that thought and use it 'cordinly."

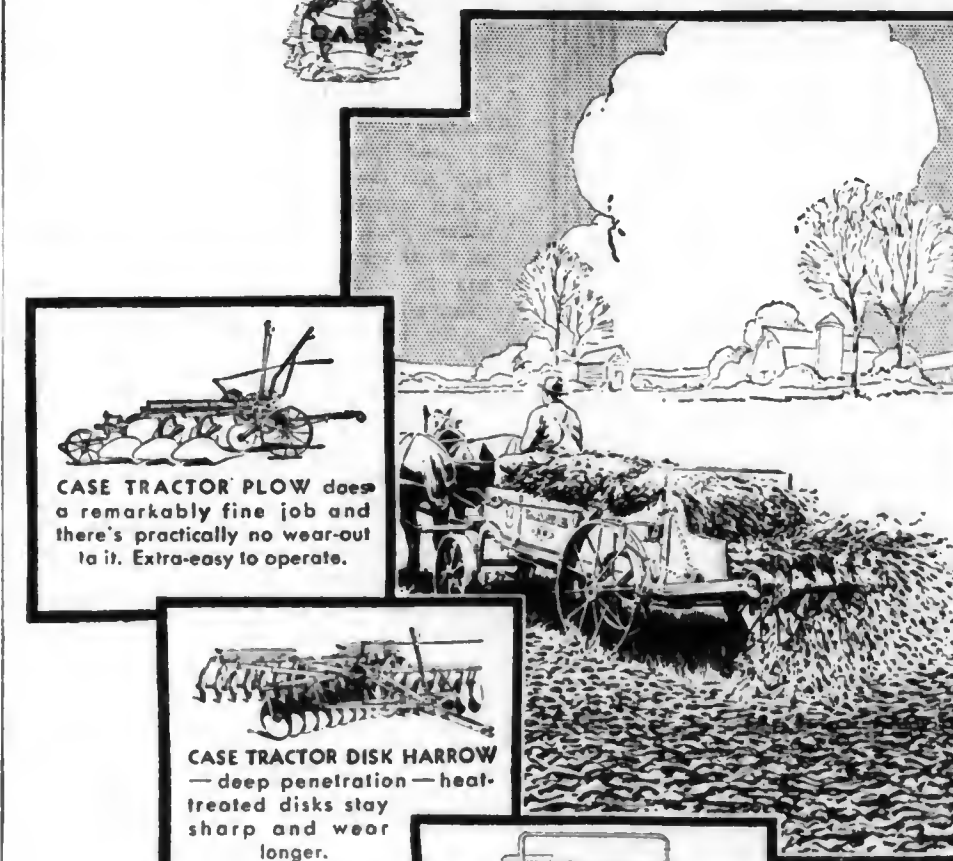
"And about the doors lettin' in the flies," I says, "most men'd think to put on a spring to keep the door shut of itself."

"A man can't think of everything," he says, "and anyway, there wouldn't be any need if he wa'n't so heedless."

"This very mornin'," he says, "he up and set a pail of sour milk on the back steps; she was goin' out to feed the pig, but I called her back to find

(Continued on page 38)

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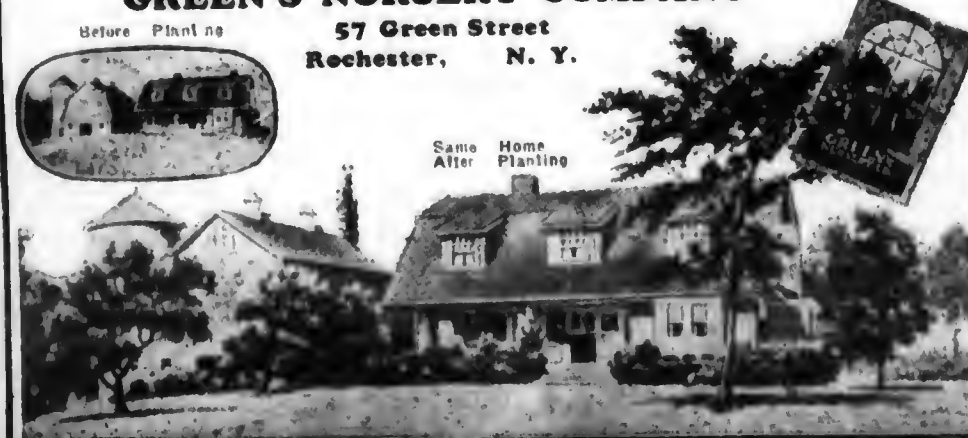
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By R. P. KESTER

WELL, Christmas is over and the work of another day demands our attention. This reminds us that, no matter how joyous an occasion or how high we may sail in the clouds of pleasure temporarily, we must quickly get back to earth and to work. I guess that it is better so. People who never have any work to do seem to have a harder time living their lives than those whose noses are kept pretty close to the grindstone most of the time.

We spent our Christmas this year at our son's home where a baby boy had succeeded in appearing in time for Christmas, having a margin to spare of sixteen days. It is needless to say that it was a happy Christmas in that home. The other small member of the family, a little twenty-three-months-old girl, is accepting the little fellow gracefully, but with more or less dignity. She is fast growing to love him, but watches to see that the elders do not act too silly about him.

The New Year has not made his appearance as this is written and we have had no chance to see what manner of fellow he is. But the advance pictures indicate that he is just about the same naked little fellow as has appeared each New Year's Day since I can remember. In other words, he is much like all new-born infants. They all look much alike. But people are earnestly hoping that he will have a kinder disposition than the old fellow who is just passing into limbo. As the year closes, many people feel that it has not been kind to them. There is unemployment, debt and some near poverty.

I have asked several merchants about their Christmas trade this year, and the replies varied from "poor" to "very good." I found that the replies depended upon the kind of merchandise carried. Those whose stores carried "practical" gifts, that is, articles which could be used and which were also suitable for Christmas presents, did a splendid business. The other kind of Christmas trade goods, those chiefly gaudy or ornamental, did not fare so well. This is probably because people did not have as much money to spend as they have been having for some years.

Catalogues from seed and nursery houses have begun to come in and they will help while away the tedious hours of winter, provided there are any of that kind of hours in your life. No kind of literature coming to our house is more welcome than nice catalogues from reliable houses. Modern business has developed the selling-by-mail idea to a fine art in this country. Not only is it fine from a mechanical point of view, but modern ethics have reached a point where the old school motto, "Honesty is the best policy" is recognized as sound sense.

Of course, there is some of the other kind also,—the kind of circular matter got out to send to the sucker list. But there is no need of being caught by it unless one is a sucker, or is so dishonest in mind as to be looking for something which is offered for nothing. If a person sends only to firms advertised in reputable journals for catalogues and information he will not likely be fooled. Sucker lists are got from others who have been fishing for suckers.

Every year adds conviction to the theory that money spent for good

fertilizers is a good investment. I remember that one year I put double the amount of fertilizer on one-half our sweet corn plot. The cost of the extra fertilizer was four dollars. That half of the plot produced just three times as much marketable corn as the other half. In other words, it produced a crop which sold for fifteen times the cost of the fertilizer, while that from the other half brought only five times the cost of the fertilizer. The work on the two parts from start to finish was the same.

Another feature of the fertilizer question which needs emphasis at this season when plans are being made is that of getting the greatest number of pounds of plant food in each ton. Surely, the time has come when farmers should stop the foolish custom of buying low-grade fertilizers. It costs in time and money to apply fertilizer, then why should they be spent in hauling, handling and applying material that has no more fertility in it than coal ashes?

Friendly Talks

By
Edgar L.
Vincent

"WHERE y' goin'?"

"Oh, I don't know. I'm jest goin'."

And so we trudge on. Foolish, isn't it? For the man who spends his time and strength traveling down a road which for him leads nowhere never does anything really worthwhile. And yet thousands of us are just that foolish.

Can you tell how much it costs you to grow a bushel of the potatoes you put down cellar last fall? What do the eggs we bring in mean to us in cost for care and feed? Don't know! We have to say it if we are really honest.

And that is one reason why so many folks are driven to say, "Farmin' don't pay!" No, farming done along that line does not pay. No business conducted on the "I-don't-know-where-I-am-going" method ever did or ever will pay very big dividends. Poking along in the dark is pretty lonesome business. But it need not be so.

Right now, at the turn of the year, is a good time to start out to know where the road leads. Go down town today and you will find men in the stores busy. Doing what? Finding whether they have been doing business at a profit or a loss. Every department is being thoroughly overhauled, and if any did not bring in a profit expenses will be cut down so that there will be money in it this year.

Now, every life that is lived on the don't-know plan is a big failure; and there is no doubt that thousands are just going on in the dark. Most of these good folks intend some day to top and take their bearings and shape their last days as they know they ought to be lived all the way along, but far too often that time never comes to them, and they go stumbling along to the end.

It need not be so. A good, kind friend has set a Big Light in the window for us all, and if we follow it now and always it will surely bring us safe home. And say, let's take all the home folks with us too. The Light is for us all. It is for you and me if we see it to point it out so that no one need be lost on the way!

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DO the rural districts of our country have a problem in Americanization? For all of the attention this question receives at the hands of newspapers and magazines devoted to the molding of public opinion or portrayal of conditions, it might not exist.

Of the need for schools in America, of the danger to the national life, and the menace to our traditions that the concentrated groups of foreign born located in our large cities have engendered, we, as a nation of readers, are very familiar. That the conditions and attitudes of mind prevalent in such groups constitute a pressing question that cries for solution, and that demands unremitting effort on the part of America's citizens and her statesmen, is well recognized.

Powerful social agencies have been at work for many years trying to overcome these problems of adjustment. They are doing excellent work and should be encouraged with open mind and hand. Any effort that aims at instilling American ideals in the hearts of our new citizens is worthwhile.

But hangovers of peasant philosophy, colored with superstitions, conceptions of government that still bear the taint of the Middle Ages, class hatred, and narrow foreign nationalism, have in too many instances been little affected by contact with our institutions.

Enough Troubles

Why should there be a German vote, a Polish vote, or even an Irish vote? Surely this country has enough troubles with problems of race, of prohibition, of religion, and of politics, without erecting any purely national barriers, based on European or Asiatic origin. Why divide our population into two groups, Americans and "foreigners"? Consciously and unconsciously we do this; sometimes deliberately, more often without thought of the significance of the act. It is the old, old, human urge, to think better of yourself and your class than of some other individual or class. The danger of such an attitude lies in that it is a state of mind, something intangible, that laws or legislation cannot change.

It would seem also to a thoughtful student of our national life that the blame for the existence of such a state of affairs can be laid directly at the doors of the self-styled Americans; that unknown to themselves they have failed to perpetuate and pass on to others the fine spirit of helpfulness and brotherhood, the lofty ideals of government, and the deep understanding of the ingredients of human happiness, with which the framers of our Constitution were so evidently imbued.

During the last decade our country districts, especially those in close proximity to the eastern manufacturing centers, have received a vast influx of foreign-born residents. Examine the taxing lists of any strictly rural township in the eastern and north central states, compare the names on the present list with those of ten years ago. The evidence is convincing.

Close to the Soil

Thousands of American families, unable or perhaps unwilling to conform to the depressed conditions of agriculture, resultant from the war-inspired over-production, sold their homes and moved into the towns. To have remained on the land would have necessitated, in most cases, a decided lowering of the standard of living reached during the war era.

Their places were taken by people hailing from Russia and Central Europe, particularly from Germany and the old Austro-Hungarian empire. Though largely of peasant origin, this group had, since coming to America as immigrants, been engaged as industrial workers. Always clever with their hands, the men quickly learned to run our machines. Economical and industrious, with a wage rate beyond their fondest hopes, they prospered and creditably saved money. This was invested in real estate, in Liberty bonds, and placed

Our Neighbors From Europe

By ARTHUR GAMBLE

on deposit in savings banks. A comparatively small proportion was sent to parents and relatives in Europe to help tide them over the lean years following the War.

This class of immigrant from the farming and fruit growing sections of Central Europe was by instinct very close to the soil. Their ancestors for generations, both men and women, had sown the crops, cultivated the orchards and vineyards, and gathered the harvests of their communities. They had not necessarily been land owning, often acting as tenants or serving as laborers on some large estate, but their feet had known the touch of freshly turned furrows, and their minds were attuned to problems of acres and seasons.

Consequently, their descendants, cooped in the crowded cities of our industrial districts, found life distasteful and unnatural. Their clean country-reared souls revolted at the dust, the din, and the ceaseless drive of shops and mills. The same sure desire for a better chance that had uprooted them from their ancestral surroundings and sent them wandering to America, with her promise of individual liberty and development, came to their aid once again.

So the immigrant purchased land with his savings and moved his family into the country, often retaining his job in the shop for a few years, while his wife and children raised the crops and fed the animals.

This settling on the land is one of the most hopeful phases of our entire immigrant problem.

It has changed his whole attitude toward his adopted country. In the act of becoming a land owner he has definitely allied himself with our national future. His welfare has become inextricably bound up with some particular community.

Heretofore it had been easily possible for our rural citizen to escape personal responsibility for sharing any concern regarding the problems of Americanization. But when he finds that his nearest neighbor, the man whose land joins his own, has a background acquired in the depressing atmosphere of Czarist Russia, he can no longer evade this responsibility, it has been brought to his very doorway.

It is impossible, even if it were desirable, to avoid contact with our immigrant citizen. Schools and business, social and community organizations make it necessary to deal with him constantly.

The Immigrant's Attitude

He is found to be hard working, simple, naive, and mostly honest, a good fellow ready and anxious to do his part. He comes, without doubt, to his new home in the country with high hopes of betterment for himself and his children, to a type of existence that offers full scope for his wife's ability as a manager and business woman. His attitude toward the older American families living in the district is always friendly and slightly deferential. He is eager to learn their ways, to adopt any custom that seems likely to identify him and his family more closely with their new surroundings.

The kind of life that he knew before coming to America, the suffering and privation, the despotism of which he was a victim, and all of the conditions that made him seek fortune in a new land, have combined to give our thoughtful immigrants a far more poignant (Continued on page 22.)

Florida and Cuba Tour

QUESTIONS and reservations relative to the Pennsylvania Farmer winter vacation tour to Florida and Cuba are arriving at our office daily. Briefly, the tour is run for the benefit of readers who would like a trip to the famous winter vacation section during mid-winter. Special reduced rates have been obtained, which mean a saving of about 50 per cent in cost of such a trip.

Travelers will leave Philadelphia and Harrisburg on February 18th, returning ten days later. They will go through Washington, D. C., and the coast states to Jacksonville, devote a week to Florida, taking in points of interest on both east and west coast as well as the interior of the state, and spend two days and a night in Cuba. Following are some of the questions readers ask about the trip:

Why are you in such a rush to get reservations early in January, when the tour doesn't start until February 18th? I would like a little more time to make up my mind.

February is the very peak of the tourist season in Florida and Cuba. The railroads have trouble finding enough Pullmans to handle the crowds. Every stateroom on the liners sailing between Miami and Havana is engaged months ahead. Hotels in Havana skyrocket their prices and turn away hundreds.

Pennsylvania Farmer already has engaged Pullmans, steamship staterooms and hotel rooms in Havana for the number of people anticipated for this tour. If we are going to need more than this number we must know at once so we can make every effort to accommodate every one. On the other hand, if we are not going to need all the facilities we have reserved, we must release them weeks before the tour starts, and it may be impossible to get them back again for the late comers.

What clothing will my wife and I need for the tour?

You will need nothing that you wouldn't take along if you were going to Harrisburg for the State Farm Products Show or anywhere else where you expect to stay for ten days. Of course, it will be winter when you leave the North and it will be summer in Cuba, so you will need some summer clothes. Detailed suggestions about clothes and baggage will be sent to those who sign up for the tour. It is usually best to travel light, but a few extras will not be a burden on this trip, since baggage need not be taken when we cross to Cuba may be left in your own Pullman section throughout the tour.

My wife and I and my brother-in-law and his wife are considering your tour. We are around sixty and not much used to travel. Do you think we would get along all right?

This tour has been arranged for people just like yourself who want a (Continued on page 32.)

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A LITTLE MIXED

IF Senator Nye of North Dakota perseveres as a mixer of metaphors he may equal the Irish statesman who remarked, "I smell a rat. I see it floating in the air, but I will nip it in the bud." The Senator said in a recent discussion: "I feel confident that this troop of pirates in the grain trade, these economic leeches in the Northwest, these barnacles on the grain marketing ship, will be unhorsed and diverted from their purpose."

FROM LIFE

ABOUT forty years ago a young man inherited 3,000 acres of rich land with good buildings and sufficient working capital. Last year he died without any estate. He thought he could make money easier and faster by speculation than by farming, and he continued to speculate until he had nothing left with which to carry on. The great estate which his father had built up by farming and stock-feeding was lost by speculation. This man had no other bad habits, but the habit of speculation has dissipated many a goodly fortune.

A BETTER PROSPECT

THE first half of the current wheat crop year was marked by two major adverse influences—a large carry-over and liberal marketing. With full storages, and importing countries using their own wheat, naturally statistics of total production had less influence on prices than usual. In the other half of the crop year, which ends next June, supplies in storage will be reduced, while importing countries will find that they have used up much of their wheat. Under these circumstances, the total available and prospective supplies will have more influence on the market and the immediate supply less. The turn of the year shows more confidence in wheat, and any crop damage may have greater effect on prices than last year, when reserves were known to be large.

AN UGLY QUESTION

WHEN the wheat market went below the loan basis established by the Farmers' National Grain Corporation that organization offered to buy at the loan price. The market immediately reacted several cents a bushel and the corporation did not have to buy grain, its purpose being accomplished by merely making a bid. This is cited by some persons as a triumph for the Farm Board's new marketing agency, but in reality it is market manipulation by an organization financed with public funds. It is a dangerous policy and some day experience will demonstrate that it is. We would all like to see better wheat prices, but a policy which virtually fixes prices or manipulates markets is not likely to bring about any permanent improvement and

it may cause serious and costly derangements. There is no better price-making agency than the open market, which represents the composite judgment of all interests rather than the judgment of an organization which speculates with public funds. An ugly question has already come to us: "How much did the friends of the insiders make out of the bulge in wheat which the Corporation created by bidding above the market?" That question is bound to arise as a result of such a policy, regardless of the integrity of the Board's or the Corporation's relations with anybody.

THAT FLORIDA-CUBA TRIP

THOSE who know the cost of Southern travel in mid-winter know that our Florida-Cuba trip is not a money-making enterprise. It is in fact an opportunity for a limited number of persons to see what they could not see as individuals for three times the cost. Those who want to improve this opportunity should make their reservations at once. A lot of questions have been asked by readers who are interested and these are answered on pages 5 and 22 of this issue. We shall be glad to answer any others by mail. But the important thing is to make prompt reservation if desiring the trip.

HOG FUTURES

SOME weeks ago we announced that facilities for future trading in hogs might be provided before long. Last week the Chicago Livestock Exchange voted to approve the system and within a few weeks it is expected to be in operation. This is the first organized effort to establish future trading in livestock and nothing but experience will show whether it is a success or a disappointment. For many years future trading has been in effect in the country, under various forms of contract, but it has usually ended in disaster for the buyer or disappointment for the seller. The producer has little to fear from this new attempt to stabilize hog prices and perhaps not a great deal to hope.

NEW PROBLEMS

EVERY new thing brings with it some new problems, business and other. The new method of harvesting small grains brings to the fore a difficult transportation problem. The combine delivers the grain to a motor truck which carries it at once to the shipping station. Harvesting, then, then-hing and then hauling by wagon spread the delivery of grain over a period of weeks and even months. The combine and the truck deliver it within a few days. The railroads cannot haul it all without greatly increasing the number of freight cars, which would be needed for a comparatively brief period. Enlarging local elevator space is difficult too. Providing farm storages to keep up with the use of the combine and the truck is hardly possible. All these and some other difficulties, such as heating of grain in transit, arise with the change in harvesting methods in the grain country. Here in the East, where farm storages are usually ample and transportation is available, we hear nothing of these matters, but they are real problems in the grain country.

TO REDUCE PRODUCTION

IN an address before the American Farm Economics Association Alexander Legge, Chairman of the Federal Farm Board, made the following statement: "A 20 per cent reduction on an average of what he (the farmer) produces would make the tariff on grain effective and give him a higher level of prices. I think it is conservative to say that 20 per cent less production would bring him 20 per cent more money than he is now getting for what he produces." And Mr. Legge thinks further, "It is reasonable to suppose that in time he may grasp the simple problem that

if he can get more money for four bushels of wheat than he can get for five bushels, perhaps he will raise four bushels instead of five bushels."

The above statement was merely incidental to Mr. Legge's discussion but it created more comment than all the rest of his address. In this comment is evidence that the proponents of federal farm relief are not going to be satisfied with anything less than actual operation of stabilization corporations as provided in the Agricultural Marketing Act. An effort will be made to induce or compel the Federal Farm Board to establish stabilization corporations to buy, hold and sell as it has authority to do. Cooperatives which face losses will favor the same policy because the revolving fund may then incur the loss. Perhaps it is best that stabilization corporations should be formed promptly. For the sooner the country has an actual demonstration of the fallacy of this scheme the sooner it can get rid of it. Comment on Mr. Legge's proposal to reduce production by concerted action of producers is hardly necessary. It is an ancient dream that human nature thus far has forbidden to become reality.

A CHANGE IN BOARDS?

A BILL to abolish the Federal Farm Loan Board and turn over its work to the Federal Farm Board is now before Congress. Probably it will be wise to wait awhile before making such a shift. The money loaned to farmers by the federal land banks is obtained by the sale of bonds issued against farm mortgages. These bonds, like other bonds, are merely parts of mortgages, in convenient size and form for investors. It is evident that when investors buy these bonds at par or better the land banks can obtain money at low rates for mortgage loans. Also that when the public does not so buy the banks cannot secure cheap money. For many months the bond market has been in a bad way and the land banks consequently short of loanable funds. But it is not likely that the Federal Farm Board could do anything more than the law and under the circumstances. And it is probable that the public which buys bonds would have less confidence in the new body than in the older one, and less confidence in its securities.

CAREFUL DEMONSTRATIONS

A CERTAIN county agent planned for a demonstration to compare ordinary seed potatoes and high-class certified seed potatoes. The latter showed so much superiority that he became suspicious. Finally he found that the farmer who was cooperating in the demonstration, and who was anxious to show the community the advantages of better seed potatoes, had secretly applied certified fertilizer to the plot on which the certified seed was planted. The farmer meant to help a good cause but he ruined the demonstration. In looking over the results of a certain demonstration we could find no reason for a great difference in favor of one method above another then in comparison. Investigation revealed that the work done on one plot was according to specifications while on the other it was not. Of course the results were worthless, yet that demonstration was seen by many farmers and its results were even published.

All this is not to condemn demonstrations, for they are highly useful. In fact many programs for improvement could hardly be successful without them. It is for the purpose of safeguarding demonstrations so that they may continue to be useful. In all such work the utmost care is essential to secure sound results in which all concerned may have confidence. Most demonstrations are of that nature now, but there are exceptions and there should be none.

New Jersey Farm Comment

By G. W. HARRIS

RESIDENTS from all rural sections of the state, as well as many city dwellers, will turn toward Trenton next week when the Fifteenth Annual Agricultural Convention and Farm Products and Equipment Show opens on January 14th. Here farmers and their wives meet with distant neighbors to discuss through their various farm organizations problems of the past year and plans for the future.

Fourteen farm organizations will hold their annual meetings during these four days. United States Secretary of Agriculture Arthur M. Hyde will be present on Wednesday and will speak to New Jersey farmers on "The Application of National Agricultural Policies to New Jersey."

Four New Jersey farmers will be presented with Master Farmer awards for 1929 on Wednesday evening when the New Jersey Federation of County Boards of Agriculture hold their annual banquet at Hotel Hildebrecht. These men were selected by the Master Farmer Judges, Dr. J. G. Lippman, Secretary of Agriculture Wm. B. Duryee and H. E. Taylor, through the cooperation of Pennsylvania Farmer and the American Agriculturist.

Three state poultry organizations, the New Jersey State Poultry Association, the New Jersey Record of Performance and the New Jersey Baby Chick Association, will hold meetings on Thursday. "Results of 1929 Poultry Extension Studies" will be presented by L. M. Black, Extension Poultry Specialist, and Professor Wilbur C. Thompson, head of the poultry department at the State Experiment Station, will speak on "A Basis for Selection of Hatching Eggs" at the morning meeting.

W. C. Krueger, New Jersey State specialist in Rural Electrification, will give a talk on "Electricity on the Poultry Plant," while H. S. Palmer, Poultry Specialist at the University of Delaware, will give an address on "The Poultry Industry of Our Neighbors—Delaware," at the afternoon session.

The identity of the state's "Chief Spud" and "Big Spuds" will be a feature of the meeting of the New Jersey Potato Association on Thursday. These terms, despite their implication, will not be applied to potatoes of enormous size. Instead, they will be conferred, with appropriate exercises, on the Jersey men who grew 300 or more bushels of high quality potatoes to the acre in 1929. To the man whose yields are highest will go the title, "Chief Spud," while to others who win membership in the 300-bushel club, as it is called, will go the titles, "Big Spuds."

The problem of potato production and marketing will be thoroughly discussed at this meeting. Fertilization and lime, the use of green manure crops, the question of power cultivation and other means of lowering productions will be of interest to New Jersey potato growers.

Dairymen to Meet With Alfalfa Association

All the dairy breeders' associations will meet jointly with the Alfalfa Association at a morning session on Thursday which will include addresses by Dr. H. B. Sprague, agronomist, New Jersey Agricultural Experiment Station, on "The Best Varieties of Wheat, Oats, Barley and Rye for New Jersey," Dr. T. J. Headlee, entomologist at the State Experiment Station, on "What We May Expect from the Corn Borer," while the latest development in machinery for field crops will be described by J. C. Hamilton, Julietstown; Clifford E. Snyder, Pittstown; and Professor E. R. Gross, Experiment Station.

Theodore F. Gold, of West Cornwall, Connecticut, president of the Connecticut Holstein-Friesian Association, will be the principal speaker at the meeting of the New Jersey Holstein-Friesian Association. His subject will be "Herd Sires."

The Guernsey Breeders' Association will hold its sessions, featured by the election of seven trustees, presentation of Herdmen's Cups to New Jersey dairymen, and an address on "Infectious Diseases, Its Control and Its Effect on Milk for Human Consumption," by R. Lawrence Hanson of Princeton, president of the New Jersey Jersey Breeders' Association.

C. E. Hough, secretary of the Connecticut Milk Producers' Association, will speak on "How Can Eastern Dairymen Hold His Market?" at the Dairymen's Banquet Thursday evening.

The entire program of the New Jersey State Agricultural Society on Friday will be a discussion of the importance of better grading and packing in merchandising New Jersey fruits and veg-

etables. The committee in making up this program realized that the present reputation of New Jersey fruits and vegetables on the market, and among consumers, must be improved if growers are to compete successfully with their competitors in other districts. The question of grading and packing is a serious problem in New Jersey and no grower can afford to miss this meeting.

Apiculture is an active industry in New Jersey with more than 3,000 beekeepers having approximately 32,000 colonies of bees valued at one-half million dollars. Besides the commercial apiaries in the state, it is estimated that 2,000 colonies of bees were used as pollinators in New Jersey orchards this past season. The New Jersey Beekeepers' Association, which was organized 27 years ago, is credited with the success of apiculture in the state. This organization will meet on Thursday.

A Town and Country Church Conference will be held by the New Jersey State Council of Churches on Friday at the State Street M. E. Church.



The manufacture of ice cream has become a great industry. Above is shown the pasteurizing room in a Philadelphia ice cream plant. At the left foreground, sugar is weighed and added to the cream. In the center are pasteurizing tanks. The cream is then cooled over corrugated coolers shown at the back.

Speakers of national repute, special household demonstrations, a state-wide spelling contest, tours, banquets and luncheons are among the interesting features for the rural New Jersey women who will attend women's meetings during the four days.

The program, as prepared by the women's committee of the agricultural societies of New Jersey, will open Tuesday evening, with a banquet to the wives of the delegates to the State Agricultural Convention. This will be followed by an inspection of the new State Museum with an address on "How the New Jersey State Museum Can Cooperate with the Rural Communities," by Mrs. Kathryn B. Greywacz, Curator of the Museum.

The women will attend both sessions of the Convention on Wednesday and a luncheon, at which Miss Elizabeth C. White, of New Lisbon, will speak on "Journeys in Plant Breeding." The annual banquet of the Federation of County Boards of Agriculture will be held in the evening with Mrs. Charles W. Sewell, Chairman of the Home and Community Department, American Farm Bureau Federation, as the speaker.

Many Events Scheduled for Women

The Women's Day festivities on Thursday will be held at the Stacy-Trent Hotel, with Miss Edith D. Dixon, Specialist in Child Study and Parental Education at the State Agricultural College, presiding. Dr. Caroline B. Zachry, Director of the Department of Psychology and Mental Hygiene, State Teachers' College, Upper Merion, will speak on "The Wholesome Family." The luncheon speaker will be Miss Marion Butters, Assistant Director of Extension, State Agricultural Convention.

The afternoon session will be at the Armory, where the Grange state-wide spelling contest will be held as well as a furniture finishing demonstration by Mrs. Marion C. Bell, Home Management Specialist, State Agricultural College, and a meat-cutting demonstration and discussion of cuts by a Trenton butcher. Women will also attend the dairymen's banquet in the evening. Friday's events consist of visits to the Lenox Pottery, the State

Museum and the Old Barracks, Trenton's most interesting historical spot.

Not all time will be spent in meetings, for, as in former years, a display of farm produce and the most modern farm equipment will be held in the Armory. The farm product display will include a commercial apple show, corn show, potato show, sweet potato exhibit, and a certified baby chick show.

A COOPERATIVE to purchase seed, feed and fertilizer and to sell poultry, eggs, potatoes and garden products has recently been organized by the vocational agriculture class in the Newton, New Jersey, High School. This is known as the Future Farmer Cooperative Association.

They plan to buy a carload of certified seed potatoes for use in their farm projects and if there is a surplus to sell to farmers of the community. The teacher in commenting on this newly formed organization says, "I can't tell yet how successful this organization will be, but I am sure the boys will get some good business experience out of it."

The work of this young farmers' cooperative will be interesting to follow. Undoubtedly the farm boys and girls interested in club and vocational work are better cooperators than many of their parents.

DEVELOPMENT of a broader market for Delaware farm products by keeping prospective buyers and dealers informed as to the quality and size of crops in advance of harvest is reported by Wilmer T. Derrickson, Director Delaware Bureau of Markets, in the annual report of the Delaware State Board of Agriculture, just issued. He says:

"In our effort to widen the distribution of Delaware products and thus assist in stabilizing prices, we are constantly in communication with buyers and dealers throughout the country. Before the beginning of the shipment of most of our important agricultural commodities, we send a letter to a selected list of from five hundred to fifteen hundred buyers and dealers, informing them as to the condition of the particular crop that Delaware producers are about to harvest and advising that, if they are not already connected with producers and shippers in Delaware, we will be very glad to give them the names of firms and individuals who will take care of their requirements. Delaware is the only state that does this, and the results have been very satisfactory. We have, in some cases, received replies to approximately 75 per cent of the letters sent out and our growers and shippers have advised us that through our efforts they have made satisfactory sales to buyers and dealers in markets that they had not previously been shipping to."

Mr. Derrickson reported also that "the year ending July 1, 1929, was the second year of operation of the law which was passed by the Legislature in 1927, requiring that all closed packages of apples packed in this state, and intended for sale within or without this state, must be marked or branded with the owner's name and address, the grade, the variety and the minimum size or range of sizes. This law was revised by the Legislature in 1929 and we believe is more effective now than previous to that time; however, the law has the active support of practically every grower and shipper of apples in the state and we believe that fully 95 per cent of all apples shipped in closed packages during the year ending June 30, 1929, were marked or branded in accordance therewith. This law in its final analysis only requires that the owner or shipper of apples in Delaware mark his packages in accordance with the contents thereof."

During the year under review the Delaware Bureau of Markets inspected and issued shipping point inspection certificates on 865 cars of perishables. Official shipping point inspection was also provided at two tomato canneries.

THE one-week course in flower gardening offered annually by the College of Agriculture, Rutgers University, will be given this year, beginning on February 24.

Work of the course, for which there is no tuition charge to residents of New Jersey, is planned to help any one interested in flower gardening. The subject matter considers the needs of the home owner who wishes to landscape and beautify his grounds, and also the professional gardener.



A field of dandelion. Alfalfa or clover would pay better.

Plans for a Weed Campaign

By DR. E. M. GRESS

WEEDES are an annual aggravation to the farmer. Some folks think they are a necessary evil that must be endured, hence give little or no thought to their control or extermination. Indeed, some may still believe that weeds and insect pests are sent upon us as a punishment for our wicked deeds.

Every good farmer in winter works out plans for his farm activities the coming summer. He knows what crops he is going to plant, the amount and kind of fertilizer he will apply, and variety and quality of seed he will use. But relatively few have given thought to the battle that must be waged with his enemy the weeds.

We often hear a weed defined as a plant out of place. This definition is true but not comprehensive enough. A weed is more than a plant out of place. It is, in addition, a plant so hardy that it will withstand almost any kind of adverse conditions. The ground seldom becomes too dry or too wet, and never too rich or too poor for the growth of weeds. And then, too, most weeds have ways of reproducing themselves that make them difficult to eradicate when they once get a start. They usually produce seeds in great abundance, and the most noxious have underground parts such as bulbs and hardy roots that can withstand the severest winter freezing.

Why should the farmer plan a weed campaign early in the season? First, because no other factor can at least be partially controlled which is causing so much loss as weeds are. Second, because at no other time in the year are weeds more easily killed than in the early spring when most of them are still in the seedling stage.

How do weeds cause this great loss to farmers? They rob the soil of nourishment and moisture that should go into the crop plants. Nowhere in the state is the soil so rich that any nutriment can be spared for the growth of weeds. Therefore, every bit of nourishment that goes into the weeds leaves that much less food for the growing crop plant.

In Pennsylvania our average rainfall is about 30 inches, which is scarcely enough to mature our crops. Indeed, we must conserve this moisture if we wish to secure a maximum yield. Therefore, again all the moisture that goes into the weeds is just that much less for the growing crop plant. The weeds, too, are so much more rugged and hardy than the cultivated plants that in their struggle for existence the weeds crowd out the other plants by excluding air and sunshine.

When the crop is mature and we begin to harvest the farmer suffers loss by having to do extra labor in cutting and handling the crop, to say nothing about the wear and tear on the machinery used in harvesting and threshing. When the crop is stored it may spoil, because the weeds which are usually hard to dry prevent the crop from drying sufficiently to keep it from heating and moulding. This is especially true of forage crops such as clover and hay of all kinds.

And last of all, the quality of the product is impaired and often the farmer must suffer a discount in the selling price. There is still one more way that weeds may cause loss that must not be overlooked. It is the reduction of the value of one's farm. Indeed, many farmers fail to consider this loss at all. Perhaps the value of an otherwise good farm may be lowered by thousands of dollars because of the prevalence of some noxious weed such as Canada thistle, quack grass, garlic or horse nettle. Most of the weeds that will give trouble during the summer will start from the seeds that are already in the soil.

Some of these seeds have been there for a number of years awaiting favorable conditions for germination, while most of them dropped out of last year's mature weeds. The spring sunshine and moisture will cause many of these seeds to grow very early in the spring and it is at this point that the weed is most easily killed.

A seed has sufficient food stored in it to start a new plant with a few roots and some small leaves. When this food has all been used and before the weed has begun to manufacture its own food in any large quantity a little disturbance will kill the young plant, which at this point is called a seedling. Of course, not much can be done



Canada thistles six feet tall. It would have been easy to eradicate these when they first appeared.

against the weeds in the winter wheat or in the field which is still in sod. The place to begin, however, is in the field that is to be planted in corn, oats, potatoes, or some other spring planted crop.

Much of this land was plowed last fall as every farmer knows it should have been, for various reasons which cannot be discussed here. We shall, however, mention those which are pertinent to the question which is being discussed. The roots of the old weeds were turned up to the surface where the freezing during the winter killed many of them. The weed seeds will also start to grow more quickly and more rapidly and will thus be killed by the harrowing and cultivation preparatory to planting the crop. It is, indeed, this point above



Chleery growing in oats. The farmer is going to suffer a loss in this crop.

all else which we wish to impress on the farmer. No farmer pays better returns than that given to the preparation of a good seed bed. Perhaps it is no exaggeration to say that an hour's labor in the harrowing preparatory to planting the crop will kill more weeds than a day's labor several months later when the weeds have become well established.

A battle well begun is half won is certainly true in keeping the weeds under control, but let us not quit with the battle half won; let us carry it through to the end of the summer by being vigilant and by killing the weeds when they make their first appearance, whenever that is possible and practical.

In the control of weeds prevention is much easier than extermination after they have become well established and this leads me to say that never should unclean seed be sowed or planted. Seeds that contain weed seeds are dear at any price. Therefore, be sure that your crop seeds are of the highest quality that it is possible to get, even if you must pay a good price for them.

The Selling End

SELLING farm produce is becoming more complex with each passing year. This is due largely to the fact that grading has eliminated much of the competition between commodities and transferred it to a competition of salesmanship.

In the case of potatoes, for instance, if one hundred farmers grade their potatoes with a mechanical grader the potatoes offered for sale by each of the one hundred farmers, as far as size is concerned, are so nearly alike that there is no competition between them. The grocer or consumer might just as well buy from one of these farmers as another. There might be a difference in the cooking qualities but the general public is not educated to a nice discrimination in the cooking quality of potatoes; and as far as I know, no data are available showing a wide variation of food value in potatoes grown on different types of soil or in a different climate.

It takes salesmanship to sell farm produce today. And along with salesmanship must go good equipment for giving prompt and efficient service. Today the farmer who would sell his own produce successfully and continually must develop a sales ability that will convince the merchant or ultimate consumer that the produce and the service he offers are especially superior in some particular feature. The eggs that he offers are strictly fresh, all white, clean and large. The grading of the potatoes or apples is given his personal attention. The food for the consumer's Sunday dinner have been fed and drawn in the most sanitary manner.

All through the list the special care taken to make the produce outstanding and of first grade must be noted and used as talking points for making a sale. The competition is not so much between commodities as it is in salesmanship. The best salesman is the one who can back up his sales talk with goods as represented and with courteous and regular service, is the one who gets the business.

It might be said that the farmers would be better off they would remain at home and produce and let the cooperative sell their produce for them. In fact I have heard grocerymen say that it is the farmer's business to produce. He should stay at home on the farm and let some one else do the selling. This may be all right when the market is in some distant city and the only way out is to combine the co-

(Continued on page 38.)

Cactus and Cackles

By ALBERT LENT

IF you have ever traveled the seemingly endless desert of the Southwest, a description of this type of country is unnecessary, for it will be indelibly imprinted on your mind. If not, imagine a wide, level valley, imprisoned on all sides by serrated mountain ranges. A desert vegetation of greasewood, mesquite, palo verdes and cacti of many kinds covers the ground. Every detail of the picture denotes barrenness to eastern eyes.

In three short years a great transformation takes place. Alfalfa, fruit trees, flowers, friendly bungalows and rank after rank of chicken units have pushed back the desert and a thriving poultry colony forms an oasis. Flock after flock of White Leghorns are scratching in the warm sunshine and the comfortable homes are surrounded by gardens and flowers which flourish the year around. The man to whom this transformation must be credited is a husky Pennsylvanian from Butler county, a former student of the Pennsylvania State College, A. J. Emery, known to every one around Tucson, Arizona, as Judge Emery.

In founding this poultry colony at Emery Park, which now has its own postoffice and may be found on your new maps, he recognized several broad basic conditions which his foresight connected together and which promised success. He knew that these conditions were true:

First: Arizona was importing 165 carloads of eggs from California each year besides those coming from other states and by truck.

Second: That ideal production conditions would allow eggs to be produced as cheap or cheaper in Arizona as in the states that were supplying the market.

Third: That the number of families emigrating to the Southwest yearly for reasons of a more equable climate or for health, was increasing; that their capital as a general rule was limited and when this was used up in rent and the necessities of life, the load on the community trying to absorb them into its economic system was excessive.

Fourth: That the percentage of failures of those entering the field of commercial egg farming was heavy and was often caused by misdirection at the start.

From thirty years of experience with poultry from both the standpoint of the producer and judge, Emery had garnered and tried ideas, culled the poor and retained the best until he had devised a system, which when followed would assure success. He realized that there was a great need of some plan to establish incoming families on a sound economic basis so that they would react beneficially, not detrimentally, for the good of the community. So securing land close enough to the city in order to have all of its advantages, he adopted a slogan.

"Health, Home, Happiness and Independence," patented his system and in April 1926, began to clear the land of its desert vegetation. Unlike Horatio Alger, the trials and tribulations of the embryo colony must be passed over, for its present status proves that they were met successfully. As the present colony consists entirely of commercial egg farmers, a brief description of their two and one-half acre ranches will not be amiss. Each lot is standard size 157 1/2 feet by 600 feet deep. In the front, facing the street, is ample room for the home, lawn, shrubs, grapes and any other landscaping that is desired. The laying units, a semi-monitor type of continuous house, extend entirely along the right side of the lot. Outdoor

runs are provided with shade and water.

The potential capacity of each tract, when developed to its capacity, is 2,500 laying hens. This also allows space for the brooding of pullets for replacements, ample room to grow green feed, space for strawberry beds and vegetable plots. Alfalfa suffices for green feed nine months out of the year and barley or oats make a desirable substitute during the winter season.

The eggs are taken to a grading cellar on the day that they are laid. There they are graded and candled, each egg being weighed during the process. They are put in attractive cartons and marketed by the cooperative association which pays monthly, not only for the number produced but for the quality as well. As the attractive cream-col-



View of Judge Emery's demonstration farm.

ored truck rolls out of the grading station with its cargo of eggs, one thinks of the days when it was necessary to turn eggs in on groceries in order to sell them.

In visiting this colony and driving up and down the streets, the story of modest beginnings and constant progress is clearly reflected. The colonist is always encouraged to start modestly by putting most of his capital into the part that will pay returns. Some use a temporary type of garage or feedroom house to live in until their project is paying.

To an eastern mind, accustomed to big two-



Pullet range in young orchard.

story farm houses, the thought of living in one or two rooms is abhorrent. Here, however, it is the style, for every one lives out of doors most of the time and the winters are so mild that thick walls and heating plants are unnecessary. But modest appearance is no indication of the comfort contained in these small houses, for ingenuity has made them into real homes.

Each year finds many new farms developed in the colony, two new tracts have been opened since 1926. A new plan for developing poultry plants for non-resident owners will soon be under way. Under the ambitious plans and guidance of this transplanted Pennsylvanian, "Arizona Whites" bids fair to be the next grade of eggs listed in New York City.

Poultry production here is a specialized business, unlike that in much eastern territory, but the principles of quality production which are necessary for the existence of the industry, in the desert are likewise the means of success anywhere, as eastern poultrymen will agree.



Permanent type home.



Temporary feed room type of house.

The Rural Church

By F. M. DAY

THE rural church is an institution that will live, although changes in rural life have left many churches in barren fields. The church is a part of Christian leadership.

It is hard to bid farewell to an old church where many sacred memories have clustered about it. The old rural church has not lived in vain. The Gospel has been preached there by godly men,

souls were born into the Kingdom, and loved ones united in the holy bonds of matrimony. Many of those who have passed on were laid by the altar while the last comforting and consoling words were spoken and now rest in the shadows of the rural church, which stands as guard to their memory.

The rural church is like old homes which were once humble mansions; their walls are tumbling down and they are no longer thought of as the worshiping places of our forefathers and mothers.

Like our own lives, let us consecrate the problems of the church with the living. Various places in rural districts each family works independently on their own farms and churches and other religious matters are often much neglected.

A better system of education must be worked out before the rural churches can come back to their own. Quite a number of farm families send their children to high schools in the cities. Many such children are lost to their home communities and churches forever, yet these churches are the most productive places for evangelism. The problem is great. Most all of our city churches' membership has been increased by people moving in from the rural districts.

The rural church's contribution to the nation's life is so great we should preserve it at any rate. Any movement that helps stabilize country life will help the rural church. With the stabilization of land values we will have another generation of home-loving people in the rural districts. They will take the place of the greatest generations of people who ever lived. They will rebuild the churches of our forefathers.

I believe the time is not of a far distant future when we will witness the building of one of the greatest rural life programs of any country. Good roads, the automobile, the telephone and the radio are now common. Business men and city workers will come to live in the open country to enjoy the fragrance of the flowers, the shade of the trees, the songs of the birds and the fresh air and sunshine.

At this time of the year we have been thinking about unity and church and the birth of Christ, and the rural churches will have a large part in the program that will be rendered in the honor of the Son of God.

Beginning the New Year

AGRICULTURE enters the new year with no depressing surpluses of food products to be worked off before the planting of the 1930 crops, according to the January 1 report on the agricultural situation, issued by the Bureau of Agricultural Economics, U. S. Department of Agriculture.

Crops of the past year show an increased valuation of about \$85,000,000 over 1928, due mainly to the increased value of potatoes; and livestock sales show an increase of about \$80,000,000, practically all of which was in hogs. The most striking increase in crop values, says the Bureau, is in potatoes, in that a crop nearly one-fourth smaller than in 1928 is valued at \$170,000,000, which is approximately double the value of the 1928 production.

THEY had hardly reached the appointed place when Rose made a dramatic gesture. A pale glimmer of yellow sand was struggling up through the green of the water.

"Jump!" he ordered.

The last man was hardly clear of the rail when the Blue Heron struck. She stopped almost dead in her tracks and all her insides seemed to tear themselves loose and keep on going till they piled up in a murderous heap in her bows. Steam came out of her everywhere with shrill roaring. A half acre of yeasty water boiled around her.

Fortunately every man could swim. They cut along like fishes chased by a porpoise, with the expert Rose keeping watch over his shoulder. Presently he yelled out for them to dive. As their heads obediently disappeared the Blue Heron blew up with a thunderous report. Smoke and steam hid her from view. A rain of fragments began to plop into the water like a descending charge of shrapnel and the veil of black and white vapor lifted sluggishly, revealing the shattered, blazing hull.

Not a man had been so much as scratched and in a few minutes they were standing knee-deep on a higher elevation of the long flat. All at once Rose seemed to find something humorous in the affair. He subsided helplessly into the water roaring with laughter. He laughed like a Titan, the ripples shaking around his waist. An answering dry grin broke out on Volney's face and he too sat down and began to cackle. Toots and Rand caught the infection. The four of them rocked back and forth with merriment. The longer Hakewill's face grew the more hysterical they became.

"This may look funny to you, gentlemen," said Hakewill ruefully, "but I fail to see the joke. And in about two minutes we'll have those seiners aboard of us mad as hornets."

Rose stopped with a snort. "That's right," he said, eyeing the advancing rowboats. He got up and seized a piece of wreckage floating close at hand. It was at least six feet long and very heavy, but he brandished it as if it were a cane. "Let me conduct this seance," he said.

"No. You gentlemen aren't in this," replied Hakewill. "The fault is mine and I'll pay the damages. There won't be any row if I can help it."

"You're to blame, sir. There's nae doubt aboot it," said Volney, judicially. "And dinna trust to the law. Settle out o' court, Mr. Hakewill, settle out o' court."

They stood knee-deep in the water like five bedraggled limps while the rowboats came swiftly on. The steersman in the leading boat shook his fist at them and began to jabber fiercely. All of the men looked ugly. Hakewill raised his hand pacifically and advanced toward them.

"We're not running away," he shouted. "The boot's on the other leg. We've been run away with and lucky to get off with our lives. I trust I haven't hurt any of you men. This thing was an accident, but I'm ready to make good any damages."

"We reckon so," replied one of the rowers angrily; but it was obvious that Hakewill's speech had made an immediate and favorable impression.

"Has any one been hurt?" repeated Hakewill. The men admitted there had been no physical injuries.

"I'm mighty glad of that," said the collector. "If you gentlemen will take us over to the fleet and show me the damage I'll keep my word about paying for it."

Jack Rose had grown tired of playing second fiddle. He waded to the nearest boat and grasping the gunwale twirled it around as if it had been a child's toy. "Now you're facing the right way," he said.

At this exhibition of strength the seiners stared at him goggle-eyed. Rose gripped the stern till the boards cracked ominously. "Some of you lubbers get out," he said. "This boat's too trifling to hold a man of my weight. Afraid of wetting your feet are you?" he continued good humoredly. "All right, I'll transfer you."

He reached out and picked up two men by their waistbands, and holding them dangling in air, waded over to another boat where he gently deposited them. The seiners were as delighted as children over a conjuror's trick.

"By golly, mistah, I reckon Samson must uv been your greatgranddaddy or somethin'," laughed one of them.

"Huh! Samson would uv run like a cottontail if this gentleman had come a-foolin' round him," said another. "An' his har ain't long neither. How powerful be you, anyhow, Mistah?"

"I'll show you boys if you keep me standin' here much longer," retorted Rose.

This was the kind of repartee the seiners appreciated. They took the party aboard without further delay and as they rowed back to the fleet the men in Rose's boat were in a continual gale of hoarse merriment over his rough witticisms. Between Hakewill's square attitude and Rose's per-

A Thinking Job

By Fisher Ames

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Synopsis

Toots Pouche, an orphan boy with no job, spends his last dollar to rescue a dog from a fight with a captive wildcat. The boy secures employment at the Broad View Hotel, a likely place run by a southern gentleman apparently more for love than for money, since it is evidently not a paying proposition. The Colonel dies suddenly after arranging for Toots to have his library. The boy and his dog are now part of the crew on Jack Rose's craft the Stingaree.

The ship's cook, Zach, and Toots have an exciting experience in the village when Zach is mistaken for a chicken thief. Back on the ship all hands are now interested in an ancient, shelly-looking craft anchored in the harbor.

sonal magnetism they were in a state to discuss the question of damages without rancor. There was no reason why Rose and Toots should remain while these were being estimated and Rose hired two of the seiners to row them back to the Stingaree.

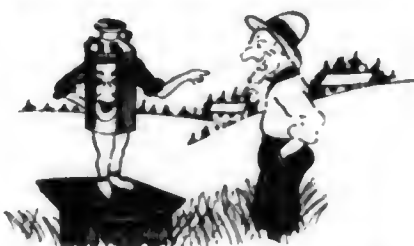
"I'm sorry for this piece of bad luck," he said to Hakewill, "but I guess you can count me out of the thing. Investin' in unmanageable old steamboats don't call to me with a siren's accents."

"You'll regret it when you see me at the top of a paying line," said Hakewill.

Rose was firm and they parted in a friendly way. The seineboat made the trip back to Shell Harbor in about half an hour and Rose went ashore to arrange for the delivery of some provisions. All indications pointed to fair weather for some time to come, and Toots expected that they would clear away for a long southerly run, but Rose seemed undecided when he returned.

"These calm spells are misleadin'," he said disparagingly. After an irritated glance at the sky he added rather solemnly: "All jokin' aside, Toots, that little jaunt on the Blue Heron might have

The Cheerful Plowman



CREAM CAN ON PEDESTAL

THE carrot crop may sometimes fail, the plums and parsnips too, the catmint may turn sick and pale and not be worth a sou; the roosters may contract the pip and lose their plumage and pride, the pigs may wilt and lose their zip, get blisters on their hide; the wheat on yonder wrinkled field may feel the touch of frost, the juice in oats may be congealed and all its fire be lost; but though this, that and 'tother fails, I'm here to say and swear the cream can filled from brimming pails will ease my grief and care. The barley may all shrivel up, the flax may lose its oil, the hail may mar my pointer pup, the spells may heat and boil; the corn may drop its silken beard too early in the fall, while wanton winds both wild and weird may rob my guinea stall; the buckwheat may have gripe and flu and glanders may appear to make my mule team black and blue and put it out of gear; but come what will of beastly luck to horse and hen and hare, I shall not sink into the muck while that cream can is there.

No, by the bones of Saint Jerome, Saints Patrick, Jake and Jim, and other saints in yonder home beyond the earthly rim, the man who pins his final faith to cream cans such as this, can laugh at all the devil saith, make all his arrows miss. The man who pins his hopes upon the cream can, hark to me, can trot his kiddies, Nell and John, at evening on his knee, and know those kids will always have enough of food and clothes; and that is wondrous mental saive, I'm here to tell you those.

—J. E. T.

been our last. Things like that kind of make you think o' home, eh?"

"If you have one," said Toots. The remark seemed to disconcert Rose. "Well, I guess the Stingaree's mine, in a sense," he acknowledged. "What I mean is—well, I suppose I'm a mite run down. I ought to have a rested a spell in Carrbury last time. The fact is I've about made up my mind to put back. This little trip's been expensive. Losin' ten dollars worth o' good grub, for instance. And that boy Zach's too fly. You've noticed that, haven't you?"

Toots scratched his head thoughtfully. When Rose repeated his question more insistently he was compelled to answer. "Well, I don't know as I can exactly say I've noticed it," he confessed. "Oh, you haven't. Maybe you think I'm too particular—or cranky even?" As Toots maintained his former non-committal attitude Rose exploded. "By the Great Horn Spoon, if I wasn't afraid of injurin' you for life I'd try to knock some respect and intelligence into your head. What are you sittin' round here for anyway? Why don't you see if you can sharpen yourself up by doing a little work? You might find the change agreed with you. We'll get under way for Carrbury."

Toots suspected that Rose's temper was the result of his disappointment over the Blue Heron fiasco. Rose was always keen on the make and he had been highly hopeful of the success of Hakewill's venture. The big man's ill-nature, however, was never more than skin deep. Toots gave it a chance to blow off harmlessly by keeping out of his employer's sight as much as possible during the rest of the day.

It was Zach who told him the real reason for Rose's decision when the Stingaree was almost at her home port. Toots had sought the galley for a snack. "Tain't Carrbury so much ez Missus Nesta Ham," Zach observed grinning. "Mistuh Rose am powerful stuck on de widder Ham. I reckon she'd hab him too if it warn't fo' dat sistuh, Miss Orianda. She don't tol'rate matrimony nohow. Miss Orianda. Allus did think men was brutes and Mistuh Rose the brutes' ob de lot. If I was de boss I'd hab too much 'spect fo' myself ter keep a-hangin' round."

Toots finished his sandwich of hoe-cake and molasses and went thoughtfully aft to rejoin Rose at the wheel. Here he got another shock. The big man was in high good humor owing to the proximity of the town where the widow Ham resided, but good humor did not mean reckless extravagance with Rose.

"It's likely I won't put out again for sometime," he began. "That'll practically mean tyin' up the Stingaree to her anchorage."

Toots considered this. He looked at Rose, who met his eye once and then avoided it. "I see," remarked Toots reflectively. He said no more though Rose was evidently expecting him to go on. His taciturnity seemed to irritate the big man slightly. "Well, if you understand, it's all right," he said presently. "I'd like to keep you on as a hand, but of course that would be foolish with the Stingaree lying at anchor and Zach able to do what little work's necessary."

"I THOUGHT I was hired for a certain trip," said Toots with his air of detachment.

"You must have imagined it, sonny. But don't fly off the handle before you're hurt. You're so darn quick with your rules and rights you don't give a feller a chance to finish what he's sayin'. Of course I don't mean to dump you down here for good, but you see how I'm placed, don't you? Just as soon as I'm ready to go I'll take you on again. Maybe you can get a nice little job in Carrbury. There's considerable work here for an enterprisin' young feller to pick up. Anyways I'll see you through somehow."

"All right," conceded Toots. "Your word's good enough for me, Mister Rose."

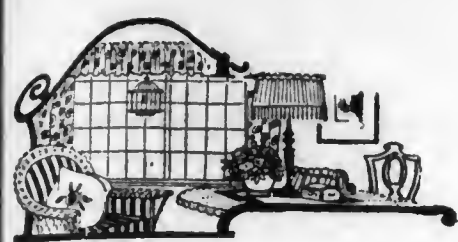
Rose went ashore when they had come to anchor off the town, leaving Toots and Zach to make everything snug. After tying his boat to the pier he walked up the street that led to the landing and entered Tigert's general store. "Well, an' how's the Capt'n?" he enquired jovially as he closed the door behind him. "What's the news since I left?"

"Hello!" exclaimed the stout proprietor, extending a floury hand across the counter. "Greetings, Jack." They shook hands and Tigert, shedding his official apron, led the way to his private cubbyhole of an office, remarking that business was about over for the day anyway.

"Business is as good as over, I suppose?"

"It's almost too good," replied Tigert. "I can hardly keep up with it, doin' most of the work as I have to. You know what help is around here. About as useful as nothin' at all. I have got a man on the delivery team, but inside the store I have to do all the waitin' on customers, book-keepin', tidyin' up an' everythin'. Slavery ain't over yet by a long shot."

(To be continued.)



The Farm Home



Out-of-Door Play Suit

"JOHNNIE! Put your coat on, or come in the house this minute!" Johnnie's coat is thrown on the ground and Johnnie is playing tag with two or three other coatless youngsters. "But, mother, my coat gets in my way. I'd much rather leave it off. Tommie's taken his off too," hopefully. But mother retorts, "You'll catch your death of cold," and forces the unwilling child to handle up again. She is right, of course, and in a measure, the child is right too. The coat is in his way. How can he be kept safe and warm out-of-doors without impeding his activities?

To meet this situation the Bureau of Home Economics has designed a number of winter play suits especially for the runabouts of preschool age, who ought to be outside as much as possible to take advantage of the short stretches of sunshine and the crisp, cold air. All of these suits are loose and roomy, and made of strong, warm materials, but all unnecessary bulk has been eliminated. Some of these suits are intended to be worn in place of an overcoat. Others, of rain-proof fabrics, take the place of a rain coat and may be worn over a similar play suit of light-weight wool or cotton.

As it is important for the child at this age to learn to dress without help, every detail of these play suits is planned to encourage self-help and independence. Front pockets are used wherever possible, and large, flat findable buttons with button-holes, or heavy cord loops. Pockets are placed at the waist line, or just below it, after careful tests made with nursery school children, to find the best location for them. At least eight different pockets have been designed, but they are all alike in one respect. The top edge flaps diagonally outward and downward.

The suit illustrated is made of paper-mill felt, a heavy wool fabric. It has all these features and several others. Notice that the ankle placket is around in front where the child can reach it, instead of on the side seam, and that the leg of the garment is shaped to get rid of bulkiness. The elastic which holds the legs down fits snug under the instep where it is out of the way and subject to least wear.

This elastic is sewn on inside the leg after the edge has been faced, because even with the best of care it will need occasional renewing. The sleeves have plenty of fullness through the elbow and are held in at the wrists by a loop and button. The patch pocket is diamond shaped to give a slanting top. Some of the suits have a square pocket with the outer corner smartly turned back. The cord which forms the loops for the buttons is carried along between the material and the facing and thus makes the edge of the suit firmer. The opening of the front extends almost the entire length to the crotch and toward the bottom of the edge is shaped out slightly to make a more secure closing. Five buttons are sufficient. A matching, close-fitting hood is worn with the suit. It has a short circular cape or collar on its lower edge to protect the neck and shoulders.

Games to Play

Spool Bubbles

ON wash days give the children a bowl of good strong soap suds and several empty spools. By dipping one end in the suds and blowing through the dry end large and lasting bubbles can be made.

Find the Word

THIS is an interesting game for older children. Send one player from the room. The others then select some word such as "can" which has several different meanings. The exiled player

is then called back into the room and given sentences, each of which must contain the word. When he finally guesses it, the player in whose sentence it was takes his place. Sample sentences would be: "I like to play ball when I can get the time." "I am looking for the boy who tied a tin can to my dog's tail." "My mother promised to can all the berries I would gather for her and now it's snowing." If the sentences are made laugh provoking they are less likely to be guessed.

Choosing Partners

A NOVEL way of selecting partners for games or a dinner is to write half of a word on a slip of card board and the other half on another slip. Only compound words should be used. As the guests pass the boxes in which the slips have been placed (one for girls and one for boys) each

draws a slip. The boys must then hunt out the girl who has the second half of the compound word. Suggested words are bird-cage, hall-tree, lamp-lighter, moving-picture, dining-room, door-way, book-case, hen-house. And a party is well started by the time John finds the rest of his fire (fire-place) and Jack having pan locates the girl who is cake (pan-cake).

L. M. T.

Know Your Business

THE sisters who were interested in budget making last April will be grateful for Mr. Zinn's article under the above heading in the issue of December 21. This is a timely topic as valuable to farm folks as to any city business or industry. Housekeeping is a business second to none in its importance to mankind. When we can measure up to all its possibilities in health, mind and character building only the best sanitariums, hospitals and colleges will be in our class.

Of course a housekeeper's budget must include many small details in its assets, and its liabilities would mean the large obligation to provide all that can minister to the health and best welfare of the family. But there is a very real gain in facing these facts and naming the obligations which we accept, precisely as there is a gain in seeing the figures that make last year's records of income and outgo for any business or industry. Naturally, the survey for this year must be adjusted to the resources of the family firm and plans for a safe margin on the right side must be made from the beginning.

But while we are lining up our business in this fashion we are getting ready to meet the question soon to be asked by the census-taker, "What is your occupation?" Then we shall say with a new pride, "I am a housekeeper." So let us read Mr. Zinn's article not only once but several times, buy a new ledger that will hold a record of at least ten years and get to work.

Because there will always be many things that we have wanted for a long time and mean to have and should have as soon as possible, our list

of actual and present necessities must come first. Our best asset, even our capital, is health, the health of all the family, and to secure this end we must have plenty of good, nourishing food and comfortable clothing. This is merely a familiar commonplace to people of experience, but experience is sometimes lacking and there are many new beginners. Let us call this survey a rule of all Big Business.

Our assets are everything we have in hand that will help meet our needs and a careful study will bring out some surprises. The farm that can furnish plenty of good milk, butter, apples, meats, vegetables, whole wheat flour and yellow corn meal has the best that money can buy. In the matter of clothing, any family of five or six persons of different ages has material that can be utilized as an asset for comfortable clothing. Everything depends on the business manager and the housekeeper is the business manager. Hepsy Neff.

Saturday Night

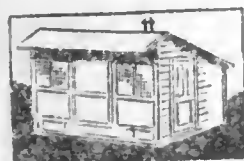
THE health extension specialist at a large western university tells of a woman who would never say "fail." She wanted her family to bathe in comfort but they lived on a farm, had no water in the house, and were too poor to get it.

She had a tub put right in her large kitchen, put a lid over it which was hinged to the wall at the back, and hung curtains around the three sides. When wanted, the lid is raised, and there you are. The water must be poured in, but she had a pipe built so the water will drain away and not need to be carried out. A curtain strung in wires to be drawn about the tub, a home made screen, or sending the rest of the family to the living room will insure privacy. Florence C. Hibel.

Heavy meals should be followed by light rather than rich desserts.

In rooms in material tend to run, launder in cold water and wash and dry rapidly.

Marion C. Brackin.



Health Brooder saved 95% of chicks. Blue print free.



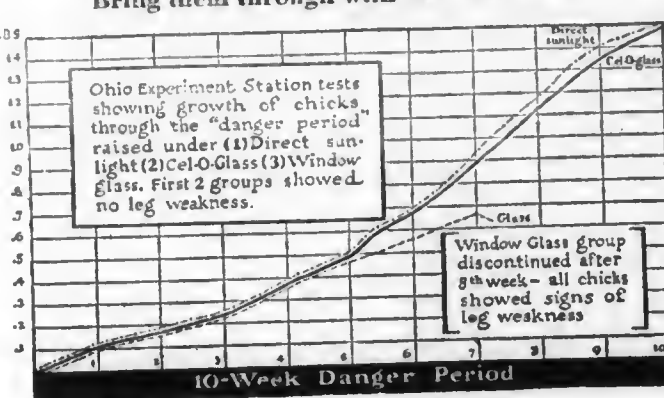
Fewer chick deaths, faster growth with CEL-O-GLASS Health Brooders

Now bring more chicks through the "Danger Period" than you ever have before.

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The first 10 weeks are the danger period for chicks. Bring them through with CEL-O-GLASS



Experiment Stations and thousands of farmers everywhere are getting remarkable results with CEL-O-GLASS. You, too, can do the same thing. Just remove the glass or soiled cloth curtains from the front of your brooder and install CEL-O-GLASS frames.

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The Women's Market

THIS particular market is open every Saturday afternoon and operated by a number of farm ladies in a small college town. They have sold produce in the same part of the town ever since it was started several years ago but have had to change to a larger empty room several times. One person is manager and she buys all the necessary supplies such as paper plates, paper bags and all other containers, pays the bills and sees that the business is straightened up at the close of each market day.

As each lady reaches the market with her supplies she deposits them on the tables or counters and marks each article with a slip of paper containing the price and her own initials. When any one has a customer she goes with this particular person until she has finished her purchases. The saleslady takes the tags from the different articles with the money to the desk of the manager and this is kept up till everything is sold.

The manager then sorts out each lady's slips, adds the sums on a small adding machine and after deducting a small commission which each one pays as her share of the expense turns over to each member her share of the day's business. Of course each lady is anxious to contribute as much as possible to the market, for she adds a considerable sum to her income each week in this manner.

The articles brought to this market are of a very great variety. Several ladies make cottage cheese which always sells readily. They also bring milk, buttermilk, cream and butter. Eggs, dressed poultry and chicken noodles are always in demand.

One of the ladies sometimes brings as many as twelve or fourteen dressed chickens. Some have taken orders for poultry through the week and some have standing orders for one or two chickens from week to week. One lady specializes on cakes of different sorts. She and her daughter are up early in the morning to make as many as possible. One lady gets up at three o'clock on market day to get her bread, buns and rolls ready in time. Many pies are sold. One lady disposed of fifty pounds of dried corn in a few weeks. In summer fresh vegetables and fruit, as well as cut flowers, are in demand.

Some of the customers are the same who began to patronize the ladies

when the market first started. The wife of the college president comes with her basket and is a regular patron. By five o'clock generally the market is over and each woman is paid her share of the proceeds. The amount of business done at this market for almost a year amounted to nearly three thousand dollars. As the same ladies, with the exception of one who moved away, are still in the group it is proof that all are pleased with this fine outlet for their produce.

Clothing Aids Health

KEEPING fit in cold weather and avoiding colds and sore throats may depend largely on clothing. For good health, the body should be maintained at an even temperature, since both overheating and underheating are dangerous; and clothing has much to do with the temperature of the body.

Clothing is not warm nor cold in itself, but acts on the body by holding in or conducting away the body's natural warmth. Dry air is a poor conductor of heat and the air spaces in clothing, rather than the clothing itself, are what actually keep the body warm.

For this reason loose, light-weight, porous clothing is recommended for both children and adults. The garment next to the skin is especially important. Porous garments which hold air and help in the ventilation of the body are more healthful than heavy, compactly-woven underweaves. A porous union suit of cotton generally gives enough protection and is more sanitary than wool because it is easier to wash thoroughly. An underweave fabric that is too thick to let the air through is less warm than a loose fabric that holds air in the meshes. For the same reason too light-weight garments, such as a sweater and a light coat, are often warmer than one heavy one.

Too little clothing wastes the heat of the body; but too much is enervating, for it increases perspiration and a subsequent evaporation may cause a feeling of chill.

Shoes, overshoes and hose are also important for good health. Shoes may be light indoors but for outside wear the feet should be well-protected from cold and dampness. Children's knees should be well protected in winter.

Timely Tips

WORN out bath robes and flannellette gowns or kimonoas that are no longer fit for wear may be used for several household helpers. Out of the largest pieces make roll-ups and covers for the extra silverware. With the freshest looking parts, make covers for the hot water bags and bottles so much needed in cold weather. Do you know they stay hot longer if covered?

You can also make warm bed socks or shoes so comfortable to older folks during winter months. Any remaining pieces always make fine polishing cloths—whether silver, furniture or even shoes are considered.

I have the most fun making jelly right in mid-winter. I am not so hurried as in summer, there are no flies to bother me, and the fragrance in the house is so enticing. Here is a popular with children and mother alike. It is more laxative and more agreeable to take than the "gar-coated" pill.

Use one pound each of figs, prunes, dates, raisins and sugar. Also one cup cherries, two cups water and two pounds walnut meats. Stone the prunes and dates, then chop the figs into small pieces. Boil together the fruits, sugar and water for one and one-half hours over a slow heat. Add the drained cherries and nuts and boil five minutes longer. Pour into hot clean jelly glasses and seal.

Mrs. C. C. Garey.

Nest Box Notes

By R. L. SCHARRING-HAUSEN

THE other day a number of poultrymen in my neighborhood made up a little party and we drove some 80 miles to Vineland where a heavy correspondence is handled.

UT in the incubator rooms I was especially interested in a battery of seventeen 12,000-egg all-electric incubators which were just being set up, as they were of the same make as the one I have just purchased. There is an interesting story connected with the purchase of these incubators, which take the place of old equipment. Last year the owner, during the season found that it hatching a greater percentage of chicks than did the incubators he was using, and at the same time required a minimum of attention and labor. After some figuring, it proved profitable to replace the hot-water long incubators with the all electric incubators, so the change was made during the fall in time to start this season's hatching.

OME of the party, who are in the broiler and capon business, found great deal to see in the battery room, where 11,000 chicks were started, a short but busy life which is to terminate over the coals a few months hence. This battery room is a padded affair, specially heated and ventilated, with the chicks in tiers from floor to head-high.

Any phase of farming is headed toward the big-business, mass production idea it certainly is the hatching of chickens in these big incubators and the raising of them for part of all of their lives in batteries.

SMALLER battery room connected with the chick packing was the product of another company, but worked along similar lines. During the hatching season a great many transient and unexpected customers come in for small orders of chicks, and this smaller battery is for storage purposes to meet this demand, which sometimes takes several thousand chicks over a week end.

HIS hatchery is specializing on two crosses for broiler, roaster and capon purposes. One is a White Rock-Brahma cross, and the other is a White Rock-White Wyandotte cross. These crosses are made each year by pure-bred males to pure-bred female flocks, and the chicks from these crosses are considered by many to be superior in every way to pure-bred chicks for meat purposes.

One experiment of using Cornish was once tried, but the result was a hard-meated bird inferior for table purposes to soft-meated birds from the other crosses.

AFTER going through the hatchery, we inspected several outcrops of White Leghorns in the neighborhood which helped to supply the hatchery eggs. These flocks, under state inspection, had been tested, and were headed by pedigree males, insuring the purchaser of high quality of chick. Lack of time prevented us from seeing flocks of other breeds, which, however, are of some high quality.



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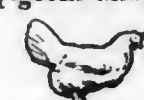


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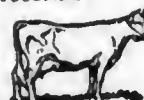
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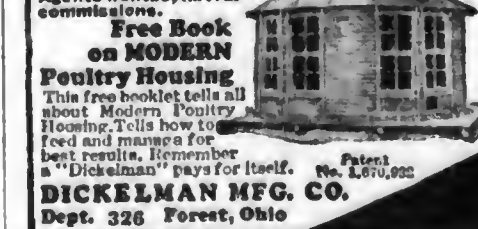
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1899 edition—just off press. Don't buy chicks until you get one. All about COOLEY'S CHICKS. Hard to find. Write now. **COOLEY'S CHICKS**
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Get rid of these costly pests. Here's a safe, easy way that doesn't require individual handling. Just add Pratt's Poultry Worm Powder to the feed. Worms are gradually gotten rid of without loss to egg production or disturbance of appetite.

And it costs less than one cent per bird for the full month's treatment. If you prefer to give individual treatment, Pratt's N-K Tablets (Nicotine and Kamala) will do the trick quickly, surely and cheaply.

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10 FREE CHICKS On orders booked before March 15th we give 10 chicks free with each 100 ordered.

When we say RELIABLE—We mean RELIABLE in every way. Breeding stock of highest quality of 20 years of careful development. Special attention paid to health of chicks and records kept.

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White, Buff and Brown Leghorns, Anconas	50	100	500	1000
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Sent for one NEW PEEKER booklet full of useful information. Prices on our latest Special Mailings upon request. We guarantee 100% live delivery of good lively chicks. We are a member of the International Hatch Chick Association. Kindly order your chicks early so that we have a chance to ship them when you want them. NATIONAL CHICK FARMS, 401 E. MIFFLINTOWN, PENNA.

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Famous Strains at Low Prices For years we have specialized in Barrow S. C. W. Leghorns. We have imported fine Barrow S. C. W. Leghorns of 25 to 34 direct from England. All our flocks are bred free range birds and produce the healthiest chicks that will become a profitable investment in stock. We can also supply you with chicks from Pure Bred Barred or White Rocks, R. L. Reds or White Wyandots.

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OFFICIALLY BLOOD-TESTED FLOCKS

UPPER STATE SUPERVISOR

Who say just ordinary chicks when you can get officially blood tested chicks that give results in the same time or less. Save money and disappointment by ordering now.

Special discounts for early orders. Catalog Free.

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Order direct from this ad and obtain the better chicks from Heavy laying strains.

Chicks and Red	\$11.00 per 100
White and Brown Leghorns	\$12.00 per 100
Heavy Mixed	\$13.00 per 100
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Postpaid. Live arrival and satisfaction guaranteed. Member International Hatch Chick Association. SUNNYSIDE HATCHERY, Box 1, Liverpool, Pa.

Experience with Poultry

By JEANETTA P. NORTON

I STARTED my poultry in a blundering sort of way. I didn't know a thing about chickens. I'd never lived on a farm until my brother John and I came out of Baltimore fifteen years ago. My family for generations back have been farmers, my father was a Maryland tobacco planter, but I was city raised.

John had been raising pure-bred English Yorkshires for seven years when I took the poultry fever and bought my first fifty hens. That was eight years ago. It took me three years to convince my brother that White Leghorn chickens can make twice as much money as white hogs. He sold the hogs and turned the lots into chicken pens.

I didn't intend to do more than have a small flock and buy part of our groceries with the eggs. But I hadn't been at it a year until I got interested in the marketing end.

Market Preference

My first hens were Barred Rocks. I bought a 50-egg incubator and started to learn how to hatch eggs. That first incubator ran a temperature from 40 to 120 degrees. The little brown book of instructions said to expose the eggs to the air one minute for every degree over normal temperature. I had the top off more minutes than I had it on. Some nights I sat up straight through until morning cooling the eggs and heating them up again. But luck was with me. Almost every egg was hatched. I realized so many pullets I had to think up a way to sell the eggs.

Our farm is only 25 miles out of Baltimore. Why not a direct-by-mail market? I interviewed the buyer of the best fancy grocery in the city. He was interested until I told him that my chickens were Barred Rocks. Brown eggs—and the deal was off. There I learned my first lesson—eggs must be white to sell at fancy prices in Baltimore. He offered me the wholesale price, plus 20 per cent, for all the white eggs I could produce.

I sold my flock and started over again with White Leghorns. I added a 150-egg incubator and two outdoor brooders. One of these I made myself with a big drygoods box, a hotbed sash and a heater. That home-made brooder brought my first tears. It was a hot day in May. The sun beat down on the glass cover. The oil lamp kept on doing its best. I went out to feed my first hatch. There they were stretched out—120 baked chickens—with the brooder temperature soaring at 185 degrees.

A Proud Day

The first year with my White Leghorns I averaged 105 eggs to the bird. I should have done better, but I didn't know a thing about feeding—just fed anything I got my hands on. Lack of equipment was another handicap.

Again I went into Baltimore, this time with sample dozens of my white eggs, to visit a lunch-room. To my surprise I sold them on the idea of quality eggs shipped in three times a week from our farm. That was the proudest day of my life.

From then on I was a business woman. I can remember yet the novelty of reading the daily market quotations. It pays to read them too. My selling price was to be five cents above the price of extras on South Hail Street. In making out my checks the purchasing steward used quotations issued by the United States Bureau of Markets. This is the average price for the leading markets and it is usually from five to eight cents lower than the local price. Keeping up on the markets saved me an extra \$4 or \$5 a week.

In the third year of my venture I added two more lunch rooms as regular buyers. This time when I called

to present my plan I took with me sample case of eggs and left me to trial. The next week I came again. Both lunch rooms gave me for more. They liked my eggs so much that in five weeks they were paying me ten cents a dozen over wholesale prices.

The Hardest Work

With a demand for more eggs in my flock could furnish it was up to me to increase production. I began feeding for eggs. I had been feeding almost all grain, only a little meal and that without animal protein. I rationed called for 100 pounds of meal, 100 pounds of shorts and 60 pounds of tankage. In the winter we add per cent of corn meal.

Our grain mixture the year around is 100 pounds of corn, 100 pounds wheat and 50 pounds of oats. This always fed in the litter. We use rape and stock beets to supply salad in the diet. Cabbage, too, one of our favorite greens. On ration I brought the hens up to 144-egg average in two years. Last year the average production per hen was 160 eggs.

My hardest work comes during brooding season. I often have eggs incubating at a time and temper gets particularly ruffled when a city friend says, "Chickens—a lovely thing to raise!"

I like raising chickens or I would be doing it, but I don't think being a poultry woman is a snap job. During the brooding season I'm up every morning at five. Some years I'm from six to eight pounds during the weeks. Last spring I hatched 120 chicks for our own flocks. I hatch any later than the last week in May.

We keep very close accounts, costs us \$2 a year to feed a hen, a net profit averages between \$3 and a bird. During March, April, May and June we average a lay of about 100 per cent production. In the winter get around 50 per cent production. From October to April we use artificial lights, switched on by the clock system.

A Quality Product

The eggs are gathered twice a year round and three and a half times in the winter. Every egg is graded according to size and is candied against blood spots before it is shipped. Our shipment express go out three times each week.

There have been times when I've solved to sell every chicken and egg. One morning, a year ago, my brother and the hand drove to the city and left me alone with the farm. I was one of the laying houses when door slammed and locked. I had get out to take care of the chickens and watch the incubators meant the loss of a good many lars if I stayed locked in for the night.

There was one tiny door, ten by square, not more than five feet to the ground. After an hour of huffing for a toe hold I kicked down the door. Each kick shot up my temper and degree. And I blamed it all on chickens.

I made \$4,300 net profit last year on 1,500 hens and pullets. They are served only in Baltimore and rooms. Sometimes I sell 5,000 a week—more than sixty dozens a day—at eight to ten cents a dozen at the top market price.

Restaurant trade isn't easy to and, once you get it, keeping it still another thing. I do it by personal contact and a quality product. Strictly fresh, absolutely clean, white—that's what restaurants of an egg. One bad egg and you dropped from the list.

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☐ Barn Equipment ☐ Drew Natio Sides ☐ Barn Ventilation ☐ Drew Girard Hdg. Tile

Name.....
Town.....
R. F. D..... State.....

Animal Protein

Since the baby chick for several days feeds on the egg contents, it is imperative that the breeding stock be fed a ration rich in the elements required by the chick. It has been rather definitely established that several sources of animal protein products are to be preferred to one. For that reason milk, fish meal and meat scraps are a part of all breeding, laying and chick rations used on the poultry farm at the Pennsylvania State College.

Since tender, juicy green food is difficult to obtain during the winter months, alfalfa leaf meal has been added to the ration for breeding hens at the rate of ten pounds in each 100 pounds of mash. One pound of cod-liver oil in each 100 pounds of mash is fed to all stock of all ages. There is a firm conviction in the minds of some that the use of cod-liver oil in the ration for laying fowls, materially aids in the structure and appearance of the egg shell. A strong egg shell is essential for hatching purposes. The other principal ingredients in the ration may be yellow cornmeal, wheat bran, wheat middlings and ground oats.

Management of Breeding Stock

By H. C. KNADEL

THIS is the season when one should be laying plans for the 1930 chick crop. This crop is primarily dependent on the condition of the breeding flock. It is to be supposed that the hens were severely culled last fall and only the late molting, vigorous individuals are to be used as breeders. To these should be mated a male with a known pedigree. Of course, pedigrees are often misleading. Of greater importance than a high pedigree is a family tree which is consistent.

This morning I spent some time in the examination of the egg-laying records of pullets which were hatched during the season of 1929. It was not difficult to find Barred Rock pullets which had laid 100 eggs in four months, but it was some task to find a hen which had ten offspring or more that as pullets in four months have laid 100 eggs.

Individual high egg production may not mean very much. If, however, a family is found in which all offspring are of good quality though the egg production of no one individual may be extremely high, as breeders such individuals are to be preferred. Hence, it is a good plan when purchasing breeding males to be sure that they have firmly fixed the desired traits which you consider important.

Change in Management

During the past few years the management of breeding stock, so that it will produce eggs when most needed, has changed considerably. This change has been made necessary because of the fact that chicks are being hatched earlier than before. Commercial poultrymen have discovered that the February and March hatched chicks are less liable to serious infection from coccidiosis. Furthermore, intestinal parasites are less liable to attack early than late hatched chicks since these organisms do not get steam ahead until the warm days of spring and summer.

In addition to the above reasons, high egg prices have moved toward the early fall months. Thus a group of chicks hatched in February or March will start to lay in July and August and continue perhaps throughout the season without a molt. Even though a molt does occur, the eggs previously laid will, because of high prices, be profitably produced.

The use of artificial light as a means of hurrying the fall molt of hens is now considered good practice. Breeding hens, which are to be called on to produce early hatching eggs, should now be under lights. If morning lights are used, they should not be turned on earlier than 4:30 a. m.

Colds or Bronchitis

I have a flock of White Leghorn hens which seem to cough and breathe with difficulty. Sometimes their eyes go shut. They lose weight and finally die.

YOUR fowls are unquestionably affected with colds or bronchitis. Colds, of course, may develop into bronchitis, roup and canker. It would be well first to remove the affected birds from the rest of the flock and place them in a building by themselves. As soon as other cases develop they likewise should be removed. All drafts which strike directly on the birds should be eliminated. It will be necessary to change the litter frequently in order that the fowls are not compelled to work or stand in wet litter. Probably the use of potassium permanganate in the drinking water will be desirable. Enough should be used to make the water a purple color.

As an individual treatment for the birds affected, I would suggest that you use cressatin, which is a coal-tar derivative. One small drop of the substance is put into the windpipe of the fowl. This causes the bird to choke for a moment and then cough out a long, stringy mass of pus and blood. Relief is noticeable immediately. The throat and mouth may be sprayed with cressatin in an atomizer. Usually one or two drops are sufficient.

It is a good plan to place more breeding males into the pen than are actually required. For instance, in a pen of 100 Leghorn hens eight males may be used. Four are allowed on the floor each day. By alternating the males in this manner, better fertility and hatchability are secured. Then, too, less scrapping is liable to occur, and though a male may go down for the count of ten, there is a sufficient number left to carry on.

Heated Houses

Will it do any harm to laying pullets to heat the coop during cold weather? During the present cold spell they have decreased about eight per cent in egg production. What will be the best way to heat a coop, steam, hot water or coal stoves?

AT the present time several experimental stations and numerous commercial concerns are investigating the advisability of heating houses for laying hens. As yet no conclusive evidence has been presented which demonstrates the proper room temperature for mature fowls. Certain poultrymen who have been experimenting with heated poultry houses claim that an average temperature of 40 degrees during the winter months is advisable.

Hot water heat would maintain a more even temperature than steam or hot air from coal stoves. Care should be taken not to over-heat the house.

Chronic Coccidiosis

What is wrong with my chickens? I have 125 Plymouth Rock pullets. They get lame in one leg and in a day or two their backs are affected so they cannot walk. Droppings are thin and of a yellowish color.

A DISEASE similar to that affecting your flock is common throughout the entire country. Birds, which as growing stock were affected with coccidiosis, when mature develop a chronic form of this disease. It is indeed difficult to cure the chronic form and we have no suggestions to offer other than to eliminate from the flock all affected birds and rigidly cull each week.

The use of Epsom salts once in two weeks at the rate of one pound per hundred adult fowls is probably advisable. The use of enteritis powder has given some satisfaction. H. C. K.

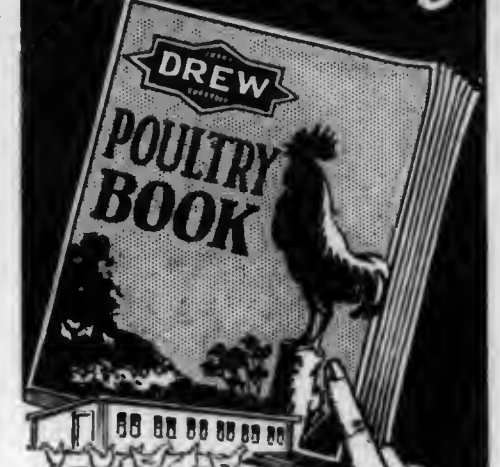
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The Drew Line Poultry Book shows all the latest improved types and styles of Poultry House Equipment. Because Drew Equipment is so reasonable in cost every poultry raiser can afford to have this profit-making Equipment. Just check the items in which you are interested and mail the coupon for this FREE Book. Now, Poultrymen who expect to build or remodel will also find in it information about Drew Ventilation—how it adds to poultry profits.

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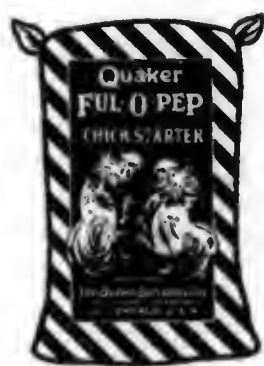


Hens Do Their Very Best on this great oatmeal feed

THERE seems to be something about oatmeal that makes hens go to work in earnest. Not just oatmeal, but oatmeal as it is combined with other purposeful ingredients in Quaker Ful-O-Pep Egg Mash.

At any rate, time after time, the ability of this great oatmeal feed to speed up egg production is proved by unbiased feeders. We know it's the very best egg ration that all the resources of The Quaker Oats Company can produce, but the hens themselves deliver the proof.

Why not put your flock on this profitable mash? No time like the present, for in addition to providing you with an increase in eggs, Quaker Ful-O-Pep Egg Mash will help you to get the best hatching eggs, the sturdiest baby chicks



And it's easy to use. Easy to get, too—just see the Quaker Dealer in your neighborhood. Ask about Quaker Ful-O-Pep Chick Starter, and Scratch Grains, too. SEND THE COUPON below today if you want some interesting information.

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BUY QUAKER FEEDS IN STRIPED SACKS

FREE

—a booklet containing valuable suggestions for the selection, management, and feeding of Breeding Stock. Also, late advice on battery brooding, and winter broilers. No obligation on your part. Just write in your name and address.

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Mail today to The Quaker Oats Company, Dept. 11A, 80 E. Jackson St., Chicago, Ill.

Our Neighbors From Europe

(Continued from page 5.)

realization of the privileges and opportunities that Americans enjoy, than we who take such things for granted can possibly understand. Surely fertile soil of this kind should have made assimilation easy.

How has the American, the typical farm owner of British or German descent, risen to this evident challenge to his belief in the doctrines that make our country more desirable than any of the older nations as a home? Did he welcome his new neighbor, and make an effort to transfer to the alien-born his own democratic conception of what was great and valuable and worthwhile in our national body politics? Have our farm organizations, our rural women's clubs and kindred societies given any continued thought to this most pressing problem present in more or less degree in practically every one of their communities?

Sad to state the evidence is against them. Go into any of these invaded sections where for several years the two groups have lived side by side. Has any progress in assimilation been made? In most cases there exists a very definite line of division. On one side you will find the "foreign element" and on the other everybody else who may consider himself superior socially, or ancestrally, to these newcomers.

The Language We Speak

Resentment is shown toward the late arrivals as a class, to their standards of sanitation and of living, and their old world instinct to barter in trade. The charge is often made that they are filthy and vulgar in their talk, but here again are differences in standards to be reckoned with, and it must, in order to form anything like a fair judgment, be remembered that the language they speak is not their own, and that their knowledge of it has come only through contact. It should make any self-respecting American blush with shame to know that often a foreigner's entire vocabulary has been acquired from sources that make it a lifetime handicap to him.

Before this influx of foreign born into our established farming communities, any social divisions to be found there were mostly a matter of difference in religious belief. If two or more churches were supported, each had its group of followers, who were apt to be antagonistic toward the members of any other group. This condition has always stood in the way of the fullest development of community life and cooperation. Add to this religious grouping another element of division, that of national origin, and your local problem of schools and administration have vastly increased.

To one who loves his country, not loudly nor perhaps even patriotically, in the common conception of patriotism, but deeply and passionately, conscious of qualities in our national structure that have made for greatness, cognizant of the fact that it is these same qualities permeating our national life that have enabled us as a people to reach a common height of human happiness and welfare superior to any other in the entire world, the presence of this threat to the very heartstones of the nation, the farming communities, must surely give the gravest concern. It should not be passed over lightly with the usual thought of "Let George tend to that." "George" is a busy fellow and may neglect it entirely.

A Far Cry

Let every individual and organization in districts where investigation reveals that the birthright citizen has neglected his duty to his foreign-born brother, take stock of their possibilities, work up a real live interest in the problem and press for its solution.

Remember that the solution must of necessity require a long time and will be largely a matter of example and association, a transferring of the things that we have found good about America to these later comers, so that they may find them good also.

Get away from the "holier than thou" spirit, or rather the "more American than thou" spirit. Give the neighbor credit for the progress he has already made. To do this you must know the background from which he has come. In many instances an immigrant family has made more worthwhile progress in the course of a few years than our own could show in several generations.

It is a very far cry from a dirt-floored Volhynian peasant hut to an American farm home, and that our immigrants have reacted so marvelously to the stimulus of American example should give high hope for the future.

Where Did the Money Go?

TIME to make your 1930 budget—but before you can do that intelligently 1929 must be reckoned with. Unless you have an accurate idea of what you spent this past year for each group of goods and services the family uses—food, clothing, housing, running expenses and so on, you cannot tell how much to allow for those items next year. Making a summary is both a mental and a moral exercise, for as you proceed with it you are at times overwhelmed with the way certain kinds of expense have played havoc with whatever plan you made at the beginning of 1929.

If you have had one of the account books or "Record of Family Expenditure" designed by the Bureau of Home Economics of the United States Department of Agriculture, it will not be necessary to tell you how to make a summary. A double page is provided for this purpose, corresponding to the estimate for the year, and if the book was properly kept, all the entries have been made. All you have to do is to add them up and compare the totals with what you planned to spend under each classification. Then you are ready to plan your new budget, using this record as a guide.

If you did not have one of these account books, by all means get one for 1930. Send fifty cents in coin or postal order (not stamps) to the Superintendent of Documents of the Government Printing Office, Washington, D. C. Go over your accounts for the past year, if you kept any, and classify the items as far as you can. It will mean a great deal more work to do this with haphazard accounts than to summarize well-kept records, but unless you do it, your next budget will be largely guesswork.

Perhaps you can find out from your summary whether or not your methods of buying food are economical, whether you have spent an undue amount for help in tasks you might have done yourself, or whether, if you had better equipment, the cost of some things could be reduced. Your summary should tell you how much has been spent for clothes by each member of the family, and, by checking over the items, you can see which of the larger expenditures, such as suits and coats, will not be necessary in the year to come.

Erie County Layers

A PEN of ten birds entered by the Toivonen Leghorn Farms of Erie county in the 19th Annual International Egg-Laying Contest, conducted at Storrs, Connecticut, has jumped into the lead among the White Leghorns in that contest. They produced 349 eggs during the first six weeks

Look! Look!....it rises twice.. ...not once

It's wonderful how CALUMET'S DOUBLE-ACTION makes all your baking better



MAKE THIS TEST—Naturally, when baking, you can't see how Calumet's Double-Action works inside the dough or batter to make it rise. But, by making this simple demonstration with only baking powder and water in a glass, you can see clearly how baking powder acts—and how Calumet acts twice to make your baking better.

Put two level teaspoons of Calumet into a glass, add two teaspoons of water, stir rapidly five times and remove the spoon. The rising fine bubbles will rise slowly, half filling the glass. This is Calumet's first action—the action that takes place in the mixing bowl when you add liquid to your dry ingredients.

After the mixture has entirely stopped rising, stand the glass in a pan of hot water on the stove. In a moment a second rising will start and continue until the mixture reaches the top of the glass. This is Calumet's second action—the action that takes place in the heat of your oven.

Make this test. See Calumet's Double-Action which protects your baking from failure.

Perhaps you have heard people tell of the wonderful "luck" they always have with Calumet. It is Calumet's Double-Action that causes that "luck." Two leavening actions—not merely one. The astonishing test described on this page will show you Calumet's Double-Action.

In baking, Calumet's first action takes place when you add the liquid to the dry ingredients. Then, when you put the batter into the oven, the second leavening action begins, swells through the batter and makes your baking rise beautifully—even though you may not be able to regulate your oven temperature perfectly.

When women have pulled one perfect Calumet cake after another out of their ovens... when they have found that biscuits which used to be only pretty good, are simply delicious when made with Calumet... they naturally tell their friends. That's why Calumet is now the largest selling baking powder in the world.

All baking powders are required by law to be made of pure, wholesome ingredients. But not all baking powders are alike in their action. Not all can give you equally fine results in your baking. Calumet is scientifically made of exactly the right ingredients, in exactly the right proportions to produce perfect leavening action—Double-Action—your surety of perfect baking results.

Be sure you get some muffins by the easy recipe on this page, and see what fine results you get. Notice that the recipe calls for only one level teaspoon of Calumet to each cup of sifted flour. This is the ideal Calumet proportion and should be followed for best results—a real economy, too. Send the coupon and Marion Jane Parker will send you the new Calumet Baking Book—free. A collection of splendid up-to-date recipes prepared by baking experts.



A RECIPE FOR CALUMET MUFFINS

2 cups sifted flour
2 teaspoons Calumet Baking Powder
2 tablespoons sugar
1/2 teaspoon salt

1 egg, well beaten
1 cup milk
4 tablespoons melted butter or other shortening

With one hand, add baking powder, sugar, and salt, and mix well. With the other hand, add milk and egg, and mix gradually, beating six or eight times. Bake in greased muffin pan. Bake for 20 minutes at 375° F. (7° F. over medium heat).

CALUMET

The Double-Acting Baking Powder



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Send me the new Calumet Baking Book—free.



Your Screen-Grid RADIOLA built by the people who know how for Battery or House Current Operation



RCA RADIOLA 22—Cabinet model, Screen Grid receiver for battery operation. With optional RCA Loudspeaker . . . \$135 (less Radiotrons)

RCA RADIOLA 21—High-powered Screen Grid receiver for battery operation. \$69.50 (less Radiotrons)

RCA LOUDSPEAKER 100B—With the rich, melodic tone characteristic of the popular "100" type of reproducer . . . \$17.50

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In the RCA Screen-Grid Radiola you are getting the latest type radio set—a set tried, tested and approved by the same engineers who gave Screen-Grid radio to the world—and who have pioneered every great advance in the radio art.

There's satisfaction in owning a fine radio—one that you can be proud of, not only today but in the years to come, and one you don't have to apologize for.

You don't need electric light service in your home to enjoy the wonders of this high-powered radio set. The RCA Screen-Grid Radiola has been built for battery operation as well as socket power. Its vacuum tubes (Radiotrons) are twice as powerful as any previous make of tubes.

No home today can afford to be with-

out a good radio set—one that reproduces the great programs on the air just as they are sent out by the broadcasting stations. And it pays to buy a thoroughly dependable set. You don't have to experiment, for Radiolas are backed by the reputation and experience of a world-wide organization.

A Radiola is an investment. It pays big returns to you every day of the year. Think of all you miss without a Radiola—things that you can't afford to miss—the latest news from all the markets, university extension courses, practical talks on home economics, musical entertainment by the country's greatest musicians—programs that cost millions a year to put on the air.

When you buy your radio set, look for and insist upon the famous RCA Trademark.



Look for and insist upon the famous RCA trademark

RCA RADIOLA

MADE BY THE MAKERS OF THE RADIOTRON

RADIOLA DIVISION RADIO-VICTOR CORPORATION OF AMERICA

Hiking from California to Maine



How far do farmers walk in caring for their cows?

In three months, according to a check made by the University of Wisconsin, 100 farmers with an average of 27 cows apiece, hiked a total of 3,500 miles—just in feeding and cleaning chores for cows, in stalls only!

That will give you some idea of the distance you're walking every day on your farm. And human feet, remember, are one means of locomotion for which you can't buy spare parts anywhere!

So give your feet all the ease and comfort you can. Thousands of foot-careful farmers from California to Maine find the maximum of comfort surely and economically from "U. S." Blue Rib-

bon Footwear. For the United States Rubber Company has built the "U. S." Blue Ribbon line not only to wear and wear and wear—but, above all, to give long-lasting, foot-saving comfort.

See it—wear it, the 44-part Boot!

Rubber boots may look like simple things to make. But not this "U. S." Blue Ribbon Boot. It is made of 44 distinct parts—all fashioned together with such skilful workmanship that one day in them will prove that they're the most comfortable boots you've ever slipped your feet into.

This 44-part boot is made over a specially designed last so as to assure perfect, exact fit for any but abnormal

feet. There is a shape-in effect between heel and ankle. This special shaping of the boot, plus the rocking chair curve in the sole, and the square flat heel gives you a springy, "carry-through" stride that spares your strength.

A set of bracing rubber ribs extend down over the front of this "U. S." Blue Ribbon Boot, so that it won't buckle over the instep and press on the big veins of the feet.

Every feature of the "U. S." Blue Ribbon Boot is the result of years of experience and effort to build the most comfortable rubber footwear it is possible to make. There's a type of "U. S." Blue Ribbon Heavy Footwear for every member of the family.

1. A Family Rubber Line

All the family can have "U. S." Rubbers—men, women and children—high-cut, storm, foot-hugging, heavy service or dress.

2. This "U. S." Blue Ribbon Boot

is built to wear long—and comfortably. Used by farmers everywhere.



"U.S."

BLUE RIBBON

foot-saving heavy footwear



6. Keds for Swift-footed Children!

Full protection for young feet—yet barefoot freedom in Keds, the most popular boys' and girls' shoes in America. Neat—smart-looking. Made only by the United States Rubber Company.

3. Neat, Sturdy Arctics

There is extra warmth in the fleece lining of these neat-looking, long-wearing "U. S." Arctics. Fine quality cashmere upper. In red soles or Ebony with white soles. 4- or 5-buckle lengths.

4. In addition the "U. S." Blue Ribbon Walrus (all-rubber arctic) is a most useful shoe. It slips right over your leather shoes, kicks off in a jiffy, washes clean like a boot. Gray soles, red uppers, 4 or 5 buckles.

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You'll not only find comfort and wear—but style, too, in these Gaytees for town and neighborly calls. "Gaytees" is the trademarked name of these stylish, tailored overshoes made only by the United States Rubber Company. Gaytees come in cloth or all rubber—in high or low height with Snap fastener, Kwik-glide fastener, or 4 buckles.

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The Care of Farmers' Feet

Combined with a beautiful history-calendar. Get the new free book on foot health written by Dr. Joseph Lelyveld, Director of the National Association of Foot Health—combined with a beautiful history-calendar. Dr. Lelyveld discusses such problems as bunions, corns, ingrown nails, chilblains, callouses, fallen arches, how to care for itching feet, and many precautions that lead to health and comfort. He also tells how to greatly increase the life of your rubber footwear by following a few simple rules. Address United States Rubber Company, Dept. FFF-10, 1790 Broadway, New York.



IN THE GREAT FARMING CENTERS AS IN THE CITIES

People buy from two to five times as many new Buicks as any other car in Buick's field!

When the man from the farm and the man from the city get together and start talking automobiles, both discover an interesting fact. And here it is:

In agricultural America, as in industrial America, people favor BUICK so strongly that they buy from two to five times as many new Buicks as any other car in its field. In fact, during August and September of this year, public preference for Buick ran so high that Buick won 41% of the total sales of all cars in its price class. Month after month, demand for Buick has surpassed the demand for any other car in its field by the widest margin in Buick history.

When the man from the farm and the man from the city start naming the reasons they favor Buick so strongly, both arrive at the same conclusion.

Never before in motor car history has it been possible to get such outstanding value as in the new Buick for 1930. Never before has Buick revealed such clear-cut superiority over its field in all elements of performance, appearance, stamina and reliability. And never before have motorists found Buick cars available at such remarkably attractive prices.

Only Buick's tremendous manufacturing resources and overwhelming sales leadership make it possible, for example, to offer six of the fourteen luxurious Buick body types at prices under \$1300. f. o. b. factory. This is all the more apparent when you realize that the new Buick combines such outstanding features as:

Buick's great new Valve-in-Head engine—developing 80½ horsepower in the 118-inch series and 99 horsepower in the 124 and 132-inch series—achieving the very perfection of performance, with improved economy.

Buick's beautiful new low-swung Bodies by Fisher, handsomely finished and appointed, incorporating such remarkable advancements as waterproof, wearproof, dustproof upholstery; new Non-Glare Windshield; adjustable front seat and adjustable steering column.

Buick's new Controlled Servo Enclosed Mechanical Brakes; new frictionless steering gear and new Road Shock Eliminator; new, longer rear springs with Lovejoy Duodraulic Shock Absorbers; and many other advanced features.

The new Buick models for 1930 are unrivaled values. Feature for feature and dollar for dollar, they represent

more motor car for the money than even Buick has ever offered before. These are strong statements, but they are true statements, and Buick is eager to have you prove them to your own satisfaction.

See the new Buicks. Drive them. Make a feature-by-feature comparison with any other car anywhere near the Buick price. Then you'll know why men and women on the farms, in small communities and in large cities alike are buying from two to five times as many Buicks as any other car in its field. Then you, too, will decide to make Buick your choice.

BUICK MOTOR COMPANY, FLINT, MICH.
Division of General Motors Corporation
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5-PASSENGER 2-DOOR SEDAN

BUICK

F. O. B. FACTORY

Give a Buick for Christmas. It's a gift that will still be giving when another Christmas comes. Three new series—three new wheelbases—three new price ranges—with 14 body types—all available on the extremely liberal General Motors time payment plan.

Series 40, \$1225 to \$1295 Series 50, \$1465 to \$1495 Series 60, \$1525 to \$1995
F. O. B. FACTORY F. O. B. FACTORY F. O. B. FACTORY

WHEN BETTER AUTOMOBILES ARE BUILT . . . BUICK WILL BUILD THEM



January 11, 1930

Engineering

Basement Wall

A SUBSCRIBER WRITES about a basement wall for his home, stating that he is planning on a thickness of only five inches of concrete. So far as strength is concerned, a thickness of five inches of the very highest grade of concrete wall reinforced with steel would probably be sufficient to carry the weight of a single story, frame house under all ordinary conditions; and still it cannot be considered safe or satisfactory basement wall construction.

But the average farmer or the average small contractor does not make a wall of the very highest grade of concrete. He is much more likely to try to save a little on the quantity of cement, to use bank-run gravel rather than to screen it out into sand and coarse gravel and then recombine it in the proper proportion, to assume that the sand and gravel are clean when they actually may contain enough clay or silt to injure the quality of the concrete, to use too much water because the sloppy mixture is more easily handled, and the neglect of the daily sprinkling which is essential to good curing. Hence there will nearly always be spots in such a wall that are neither of full strength nor full waterproof.

Hence, most of the building codes specify eight inches as the minimum thickness for a foundation wall even for a single story house; and for large barns and two-story houses, 10 and 12-inch walls are none too heavy. The small saving in the cost of the cement used hardly pays for the much greater care required for building forms and putting in reinforcing and the possibility that the thinner wall may fail to be waterproof when finished.

I. W. Dickinson.

Cayenne Pepper in Oil

A subscriber recently inquired for some remedy for preventing mice from gnawing his harness. I have had fair success along this line by mixing cayenne pepper with the oil when greasing the harness, using enough to make it pretty hot. I hope this may be helpful to other readers.

C. S. C.

THIS is an entirely new suggestion, and it would seem that there might be some merit to its use. Although our reader does not say how much pepper to use, I would judge that a tablespoonful to about a quart of oil would not be far off, and what oil was left over from this would be just as effective the next year.

A great many of our readers have found that salt put on the barn timbers in the neighborhood of the harness is a good preventive, the mice apparently nibbling the salt in preference to the harness. Several have found that mice have a marked dislike to pine tar and that if it is smeared on the posts and timbers above and below the harness there will be no trouble from the mice gnawing the harness.

I. W. D.

To Clean A Vinegar Barrel

Would like to know how a vinegar barrel could be prepared so it could be used for curing meat in brine. D. S.

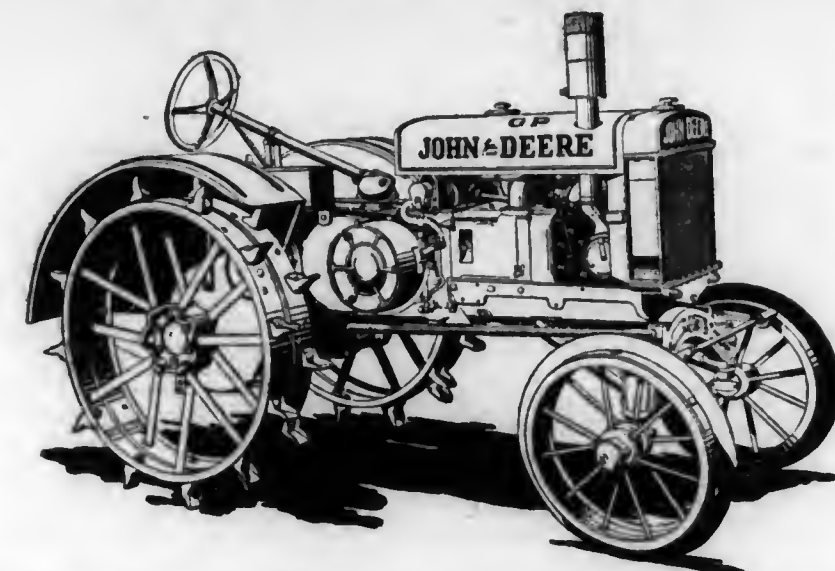
USUALLY very little cleaning is considered in the case of a vinegar barrel, other than to let it stand several days full of water, let the inside dry out, then burn a few handfuls of excelsior or shavings or dry straw in it, then scald thoroughly with boiling hot water.

Any of our readers planning on killing and curing farm meat should by all means write to the U. S. Department of Agriculture, Washington, D. C., and to their own and one or two neighboring agricultural colleges for free bulletins on the subject.

I. W. D.

PENNSYLVANIA FARMER

(55), 23



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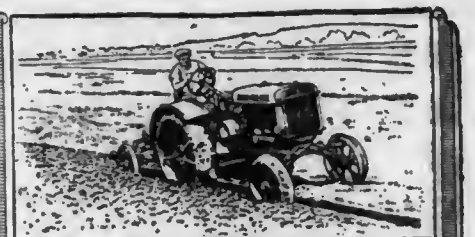
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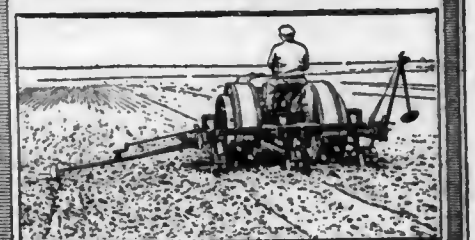
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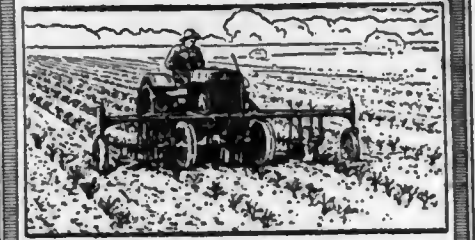
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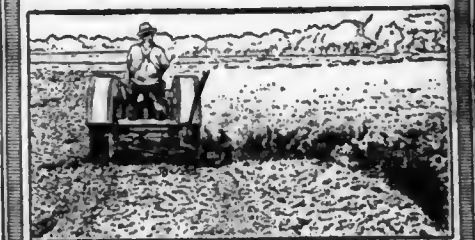
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Orchard Windfalls

By S. W. FLETCHER

THE program of the annual meeting, to be held at Harrisburg, January 21-23, is now being distributed to the nearly 1,000 members. Out-of-state speakers include M. C. Burritt, of Hilton, New York, who will report on problems of the western New York fruit district, which is the chief eastern competitor of Pennsylvania, giving special attention to fruit cooperatives and to the compulsory grading law. The latter subject will be discussed, also, by W. S. Campfield, of Staunton, Virginia, who is convinced that it is working out well in his state. All this is preliminary to a discussion of what we should do along this line in Pennsylvania.

F. H. Beach, of Columbus, Ohio, will judge the fruit show and will tell of his experience in the thinning of fruit and with the newer varieties. R. A. Van Meter, of Amherst, Massachusetts, will speak on the "McIntosh menace," as some alarmists call it—the increasing dominance of this variety in eastern markets—and what it means to Pennsylvania. It is expected that a member of the Federal Farm Board will speak at the banquet on Wednesday evening.

About twenty-five Pennsylvania growers will participate in "Growers' Experience—Five Minute Talks." H. G. Baugher, a nurseryman, and F. N. Fagan, a college professor, will argue the respective merits of one and two-year-old apple trees for planting; and there will be many other good things.

The Federal Farm Board
Pity the harassed members of the Federal Farm Board! They are driven from cover to cover by earnest seekers after a juicy slice of the \$500,000,000 melon. Many of the requests for help are sincere and meritorious, but the percentage of wheat to chaff must be surprisingly small. Then it has to contend with all sorts of subtle self-promotion schemes.

For example: The officers of the State Horticultural Association recently received long distance telephone calls and telegrams urgently requesting their attendance at a meeting in Washington, to perfect plans for nation-wide advertising of fruit. It was represented that this meeting was being arranged with the approval and in cooperation with the Federal Farm Board. Coming from such an august body, the invitation could not be declined. Representatives of the Association attended the meeting, only to find that it was drummed up by a ubiquitous advertising agency. The Farm Board had no part in it: no members of the Board were present, but one of their employees showed up to learn what it was all about.

Loud and raucous is the American advertising ballyhoo and numerous are the itching palms stretched pleadingly toward the federal purse. May the Farm Board be blessed with the wisdom of Solomon; this, and more, will be needed if it is not to flitter away its substance.

Apple Varieties
During Horticulture Week at State College, R. S. Sudds gave a summary of the variety preferences reported by several hundred fruit growers in different parts of the state. This is reliable counsel to prospective planters; these are the varieties that the growers have found most profitable. He has divided the state into five horticultural districts, based chiefly on geography and climate.

Southeastern District: (South of a line from Harrisburg to Stroudsburg, and east of the Susquehanna River.)—Stayman, Rome, Grimes, Smokehouse, Delicious, Jonathan, Summer Rambo, Southern Belle, Franklin Adams, York, Cumberland.)—York, Stayman, Grimes, Jonathan, Summer Rambo, Delicious, Smokehouse, Rome, Ben Davis.

Central District: (The mountainous section of the central and southern counties.)—Baldwin, McIntosh, Stayman Jonathan,

Spy, Grimes, Rome, Summer Rambo. **Southwestern District:** (West of Somerset and Indiana counties and south of Mercer.)—Baldwin, McIntosh, Spy, Rome, Wagener, Jonathan, Wealthy. In the southern part of this district, Stayman, Delicious and Grimes are added.

Northern District: (All the northern counties, and including Cambria and Somerset counties.)—Spy, McIntosh, Baldwin, Wagener, Stark, Wealthy.

Among the varieties that are definitely black listed by commercial growers for one reason or another are: Mann, Fall Pippin, Gillflower, Ewalt, Winesap, King David, Yellow Bellflower, Pewaukee, Salome, Smith Cider, Wolf River, Alexander, Roxbury Russett, Follawater, Hubbards-ton, Spitzenburg, King.

The reports indicate that there is very little new planting of apples in immediate prospect in Pennsylvania.

By the way, did you note Ben Davis on the list for the Southern District? It is at the tail end to be sure, as though Mr. Sudds, being a college professor, was ashamed to include it, but was forced to do so at the last moment. And why? Because many of the growers in this district report that Ben is making them more money than any other sort. And some are even planting trees of this contemptible variety. There ought to be a law against it!

Trellis or Arbor

WHEREVER grapes are grown they must have either a trellis or an arbor to grow on to keep them off the ground and to keep the fruit clean and easily accessible for spraying and picking. If the garden is small and the space for the vines is limited a trellis is usually used. If the garden is large enough the grape arbor is a pleasant addition to the permanent fruit garden.

In building a grape trellis the same kind of construction is needed as for the construction of a good grade of wire fence. The posts must stand about five feet out of the ground and for this reason the line posts of the trellis should be at least seven feet long. The end posts must be very well braced, as these will have to hold up most of the weight of the vines and fruit. Although some use No. 12 wire for a grape trellis I do not believe that it pays to use anything smaller than No. 10 and a No. 9 wire will give more satisfactory service. This wire should be well galvanized to make it last longer.

If two wires are to be used on the trellis space them 30 inches and 56 inches above the ground. If three wires are to be used space them 20, 40 and 56 inches above the ground. If the grapes are to be trained according to the modified Munson system of training the posts must be set about five feet out of the ground each with a cross arm at the top made out of a 2x4 two feet long. The poles should have a three-eighths-inch hole bored through them about six inches below where the wires will be that are stapled to the outside ends of the cross arms. A third wire is then run through the poles to complete this form of trellis.

In making an arbor for the grapes somewhat longer poles will be needed. These should be set in two rows about eight feet apart. They should be about two to three feet in the ground and from seven to eight feet above the ground when set. One-by-two-inch slat is nailed across the tops of each pair of poles along the line of the arbor to carry the wires that are strung fifteen inches apart across the top to form the roof. Other wires are stapled to the sides of the arbor 30, 48 and 66 inches from the ground. If the grounds near the garden are large enough the arbor is sometimes built in a hexagonal shape and is used for a summer house. W. E. Wiecking.



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MARKET PLACE

By W. R. WHITACRE

A REFRIGERATING truck has been developed by a California inventor that generates its own cold as it travels. It has been tested in the deserts of Southern California and at the end of the journey perishable products were found to be in perfect condition. The apparatus is compact and derives its energy from the drive shaft. A similar truck working on somewhat the same principle has also been developed but it has the additional advantage of being adaptable for work in cold districts as it prevents freezing.

I do not believe that either of these trucks is on the market as yet but it will be only a matter of time before they appear. The business of hauling fruits, vegetables and other perishable foods by truck has grown rapidly, and one of the disadvantages in the past has been that temperatures could not be controlled as well as in a refrigerator car.

There is a great field for inventive genius in improving the marketing of perishables. The refrigerator car while it has enabled California and other distant states to ship to eastern markets has room for improvement. Ice bunkers take up room that could be occupied by paying load, temperatures are not as uniform as might be and icing is expensive.

I have heard that experiments have been made with mechanical units but there are times when the cars are standing on track, or on a siding and there has been no practical way discovered to apply energy at this time. Solid carbon dioxide is another possibility, as it has small bulk with great cooling power. Heating devices for cars of potatoes which must pass through very cold temperatures can be improved. The charcoal stove in the bunker requires care, attention, gives off poisonous gases and is not entirely satisfactory.

Treating fruits and vegetables with gases or chemicals to preserve them and to prevent decay has been done to some extent. Apples and oranges from the West have been given a chemical bath to aid in the prevention of molds. A gas has been developed which hastens the coloring of oranges and other citrus fruits.

Color is one of the greatest factors influencing the sale of apples and it may be possible to develop some process that will give them the desired degree of color. The apples themselves throw off gases which when confined in a basket or barrel cause scald. The shredded oiled paper which is being used extensively today, is supposed to absorb these gases and to control this damage to a large extent. These are but a few of the possibilities that will be perfected and further developed in the future.

A Trench Disposal Plant

A NUMBER of years ago we solved the problem of disposing of tin cans, broken glass, crockery and such refuse as could not be destroyed by fire. Digging a rather shallow trench in a low part of the garden we began filling it with trash and pounding it down with an axe or mallet. Dirt was filled in and asparagus planted on top. Then by degrees we filled in the low place, which was well drained, and the asparagus yielded a fair crop the second year.

Seeing the good results we planted trees and shrubs in various places. Two cherry trees grew as high as the house in a few years, while apple and peach and plum succeeded just as well. A big hole was dug for each tree and filled almost to the top with refuse, then tamped down, earth filled in and the tree set.

I offer you BERRY PLANTS at WHOLESALE

Don't waste time on ordinary plants. My Hardy, Northern Grown plants are bred and grown scientifically and then carefully selected, one by one for shipment. They are not taken from old fruiting beds, but are grown for plants alone. Set some of my plants this year, in both the older, well known varieties and the Newer Better ones, and assure yourself a giant crop of choice fruit that will bring premium prices. In addition to this extra quality I offer you real wholesale prices on a few plants or many.

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PREMIER CONCORD
Premier, the earliest June strawberry, is frost proof, and will yield loads of fancy fruit very early in the season. It is the highest quality I offer you real wholesale prices on a few plants or many.

LATHAM
Latham, the new red raspberry, yields extra-big, continuous crops. Will not "winter kill." Fruit ripens evenly, and brings premium prices. Every plant double-inspected and disease-free, very high grade.

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The new "Blackberry without a core," the greatest blackberry ever introduced in every way. My plants are the highest possible development of the strain. Very hardy, productive and vigorous.

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We cannot always have real flowers but we can make glowing paper flowers that are so realistic that often one has to feel of them to find out that they have not been picked from the garden. Then there is a ready market for these flowers the year around.

For the jonquil you will require crepe paper in light amber for the petals, dark amber for the pistil and center tube, sand color for the sheath, and moss green for the leaves and stems.

Pistil and Tube

For the pistil cut across the grain a half-inch strip of dark amber allowing two inches for each pistil. Stretch the strip and fold the end of it in a tiny ball. Beginning with the ball, tightly roll the paper diagonally downward, around and around at the end.

For the center tube, cut across the grain a half-inch strip of dark amber allowing two and five-eighths inch for each tube. Fold a two and five-eighths-inch strip to six thicknesses. Round off the corners very slightly and flute each scallop once. To "dute," hold the edges of the scallop between the thumbs and forefingers, and push away with the left thumb, and pull forward with the right forefinger, stretching slightly with this motion. To form the tube, paste the straight edges together, one on top of the other, and overlapping only enough to hold securely.

The Petals and Sheath

For the petals cut across the grain a strip of light amber four inches wide and allowing three inches for each strip of three petals. Divide the three-inch edge into three equal parts, slashing inward two inches, and making these slashes one inch apart. Cut the corners around, and point the end. Two of these strips of three petals each are required for each jonquil.

The sheath is cut from the sand crepe paper, and the tiny leaf-shaped sheath is cut from sand crepe paper. It is cut with the grain running lengthwise and is one-half inch in the center taper to one-fourth inch at top and bottom. Wrinkle this slightly to give the appearance of a dried petal.

Leaves and Stem

For the leaves cut pieces of moss green crepe paper 10x1x1/4 inches, running with the grain of the paper. Fold this in the center with the grain and then shape the leaves by tapering one end, rounding the line gradually towards the point.

For the stem, cut across the grain a one-half-inch wide strip of moss green crepe paper, through the entire thickness of the fold. It requires about twenty inches for each stem.

To Assemble the Flower

To assemble the jonquil, place the pistil in the center of the tube, so the ball comes just below the edge.



Tulips, Jonquils and Roses are yours for the making.

and gather the tube closely at the bottom. Place a strip of three petals around the tube so the petals will project about one-fourth inch above the tube. Each petal will overlap the other slightly at the base. Full the remaining three petals around the outside so they will come between the first three petals. Twist a ten-inch piece of spool wire firmly once around the fullness, and cut away the surplus paper one-half inch below the wire.

Winding Stem

To wind the stem, fasten the end of the half-inch strip of moss green crepe paper to the base of the jonquil. Stretch the strip and wind closely around the base two or three times and down one inch. Brush the even end of the sheath with paste and enclose it in the stem wrapping. Place a twelve-inch strip of stem wire along side of the spool wire, continue the stem winding for three inches by holding the wires in the right hand, and twirling the stem around, guiding the paper, slanting it downward, and stretching it so that it will wrap the



Add a Line

TO the one sending in the best line to complete the poem, a prize of a book will be sent. Just write your line on a sheet of paper with your name and address and send it to Puzzle Editor, Pennsylvania Farmer, 7301 Penn Ave., Pittsburgh, Pa.

Mr. Hen

There was an old lady of Wooster
Who was often annoyed by a rooster
She cut off his head
Until he was dead—
(Add the prize line.)

New Year Resolutions

1. Do my home work every night.
2. Always do my lessons right.
3. Don't eat too much sweets or candy.
4. Always keep "spick and spanly."
5. Don't stay out late at nights.
6. Right your wrongs; keep your rights.

Written by Beatrice Shreiner.
Chester County, Pa.

All About Kate

Here are the answers to last week's puzzle:

- | | |
|-----------------|-------------------|
| 1. Advocate | 13. Intricate |
| 2. Adjudicate | 14. Supplicate |
| 3. Defalcate | 15. Lubricate |
| 4. Delicate | 16. Masticate |
| 5. Dislocate | 17. Prevaricate |
| 6. Duplicate | 18. Prognosticate |
| 7. Educate | 19. Predicate |
| 8. Eradicate | 20. Suffocate |
| 9. Extricate | 21. Indicate |
| 10. Fabricate | 22. Syndicate |
| 11. Hypothecate | 23. Rusticate |
| 12. Imprecate | 24. Vacate |
- The prize winner will be announced next week.

REMEMBER!

The new Contests:
"How I spend My Spare Time"—not more than 500 words.
"Why Fathers Grow Bald"—cartoons to be submitted on white, unruled paper using black or India ink.

Ten prizes for the best.
Contests close February 1st.
Send your letter to Young People's Editor, Pennsylvania Farmer, 7301 Penn Ave., Pittsburgh, Pa.

Little Folks' Corner

THE birds were all gathered by a brook down South. They were having a reunion. There were robins, red birds, orioles, sparrows and all kinds of birds. They had not met for several months. Mr. Robin is telling them of an adventure he had.

"When I was up North, I built my home close by a farm house. At this house there lived a little boy and a little girl. The boy's name was Frank and the girl's name was Elsie. One day when Frank and Elsie were playing they came near my home. How frightened my wife and I were. We flew around the nest crying for help. When Frank and Elsie heard us, I heard Elsie say, 'Those robins have a nest close by.' So they began to hunt for the nest, and very soon found it on a corner of the fence."

"Oh!" cried all the birds.
"Cheer up," said Mr. Robin. "They did not harm my nest at all. They only looked into the nest, where they saw four pretty blue eggs. Then they went away, and as they went I heard Frank say 'We shall come to see this nest again tomorrow.'"

"That was a wonderful adventure," said Mr. Catbird, "but if I were you I would not go back to that farm house again, to build my home."

The other birds then told of their adventures. The bluebird told of how he had been caught in a snare. The wren told about building his home in

a bird house, and about a little boy killing his mate. The oriole told about a man snaring him and putting him into a cage, and how a little girl came along and let him out. Each one had a story of his own to tell.

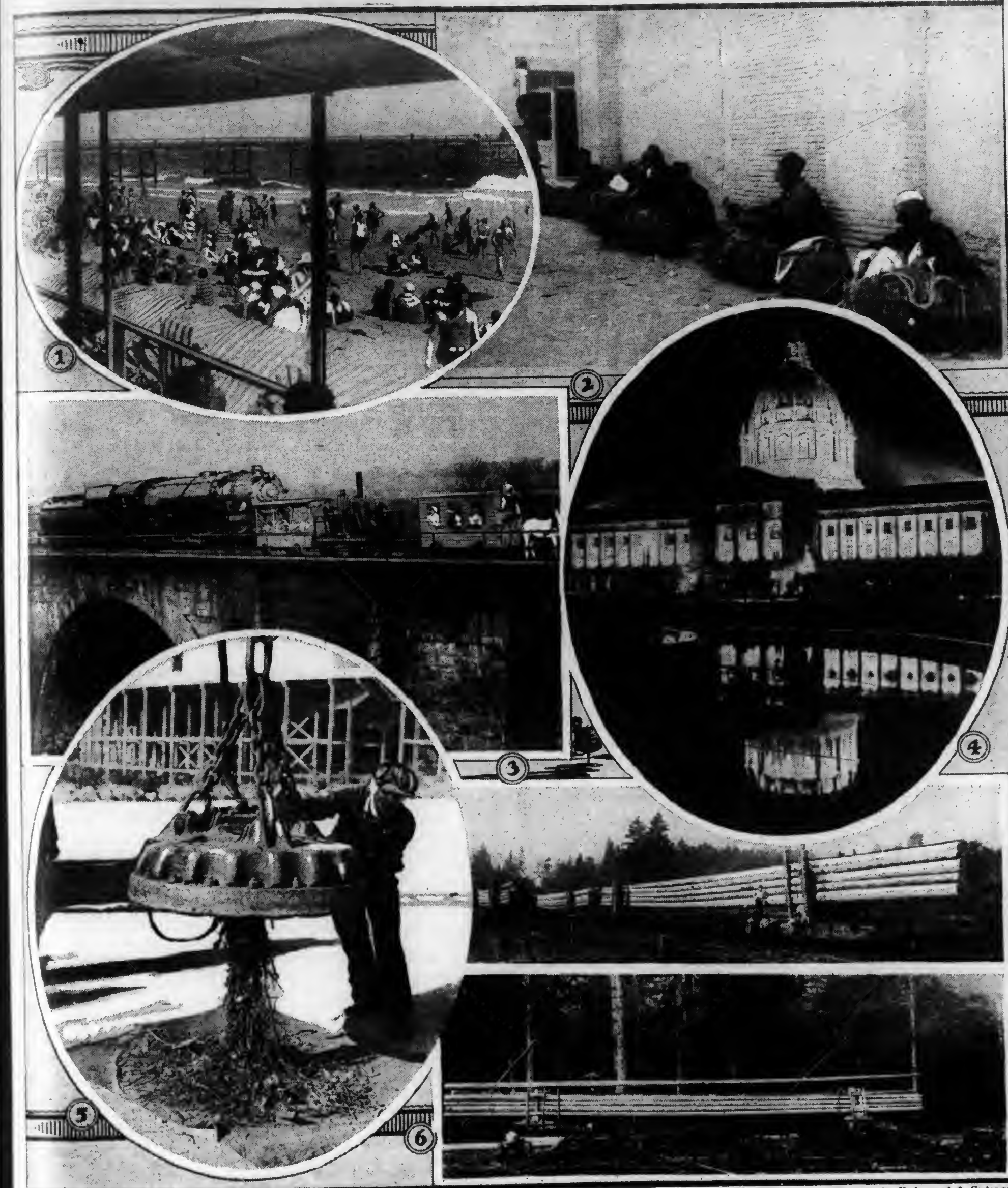
Then they sang songs and had a very merry reunion. Then Mr. Barn Swallow led them all to his home under the eaves of a barn where they saw his nest made of mud, in which there were four pretty eggs.

Written by Twila Ratruck.
West Virginia.



"Spotty" is owned by J. H. Fasnacht, Lancaster county, Pennsylvania. You can see he is very fond of children.

PASSING EVENTS IN PICTURES



(Copyright by Underwood & Underwood)

1. Where everybody who is anybody meets in the winter time—the gay crowds at the breakers, Palm Beach, Florida.

2. Tabriz, Persia.—Photo shows the quaint poultry market. Chicken farmers bring their fowls in these odd baskets and sell the birds alive.

3. One hundred years ago, officials of the Baltimore and Ohio Railroad operated the first train over a newly completed stone bridge, located near Mt. Clare Junction, and called the Carrollton Viaduct, after the signer of the Declaration of Independence.

Today, after 100 years of service, during which the tiny equipment of that day has been supplanted by the luxurious and gigantic en-

gines and cars of this age, the old stone bridge is still in daily use.

Photo shows the old stone bridge with engines typifying 100 years of railroading about to cross it. In the front is a Tom Thumb engine in the vintage of 1828, followed by its modern brother, of the Lord Baltimore type, which weighs 329½ tons and is over 100 feet long, while a horse car of the presteam age leads the procession.

4. A study of one of San Francisco's most beautiful buildings—night lights lending charm to the magnificent City Hall.

5. Pasadena, California.—The result of only 15 minutes sweeping with the new portable

magnet at the Rose Bowl. At this rate, officials believe they will collect literally tons of metal scraps.

6. Centralia, Washington.—Above, a view of the shipment of seven loads, or 21 carloads of 120-foot pling—a part of the order which the Ford Motor Co. placed in the Northwest for 9,000 feet of these long "sticks," as they are called. Sixteen "sticks" make a load. This shipment went to Verhagen, N. J.

Below, the A. B. Hughes Lumber Co. finishing up a load of pling. The two men shown loaded these cars in about two hours with the aid of two tractor donkey engines. The order was so large that a number of lumber companies were needed to fill it.

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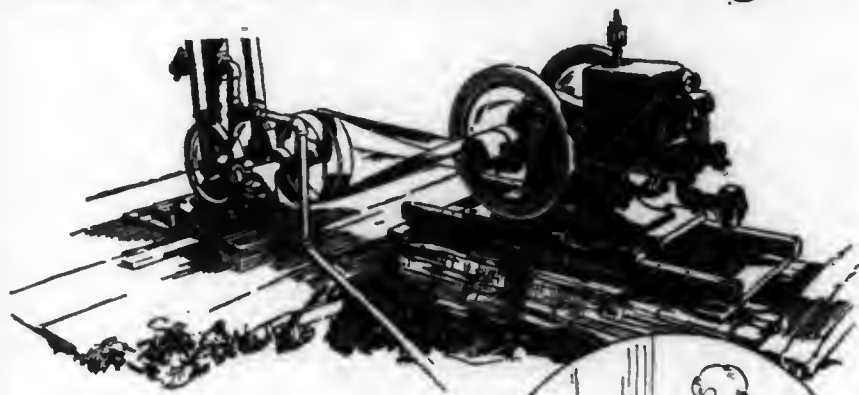
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McCormick-Deering Engines have high-tension magnetos for easy starting; sturdy, one-piece main frames for heavy duty service. They are built with removable cylinder heads, long connecting rod bearings, enclosed crankcases, speed govern-



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nors, heavy, drop-forged, heat-treated steel crankshafts, and large, wide main bearings. All parts easy to obtain and easy to replace.

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The Hand That Rocked the Cradle

Chapter II

By W. D. ZINN

ABRAHAM LINCOLN once said: "All that I am or hope to be, I owe to my angel mother." There are two women to whom I am greatly indebted for whatever success has attended my efforts in life. The first of these was my mother. The second was a young lady with whom I, at the age of 22, formed a partnership for life. This chapter is written in loving memory of the woman who rocked my cradle and guided me through the precarious days of my youth.

My mother's childhood days were spent in a very humble farm home in a county adjoining the one in which Woodbine is located. Her father, James Gawthrop, was the pastor of several country churches. Her mother, whose maiden name was Hulda Waldo, was the daughter of John Waldo, a physician for both physical and spiritual ills. These grandparents, as well as my father, were all missionary Baptist preachers. Grandfather Waldo was indeed a missionary, for he rode horse-back over four or five counties ministering to the sick and preaching the Gospel in every home where a few people were gathered together.

A story is told of Grandfather Gawthrop, that he preached fifteen years for one church and the only compensation he received was from one old brother who, out of the generosity and goodness of his heart, gave his pastor twenty-five cents. My grandfather said: "Here is sister . . . She needs it much worse than I do. I shall give it to her." He preached twelve years for another church where his pay was a pair of woolen socks donated by a faithful sister of the church.

In Line of Duty

My grandfather was a very good man. As sure as there is a heaven, he is enjoying its felicities today and receiving his reward for his self-sacrificing work. But with all due respect for his blessed memory, there is considerable doubt in my mind whether he did right in serving gratuitously a people who were well able to pay him a living salary. While he was thus serving his brethren without pay his faithful wife was at home doing not only the indoor work but much of the farm work as well. She plowed, harrowed, sowed the grain and reaped it.

One Friday my grandfather sowed some oats. It was necessary for him to leave early Saturday morning, before all of the seed was harrowed in, for his Sunday appointment. My grandmother, with only one horse remaining went to the field and caught a colt that had never had the harness on. Putting one of the children on the old horse to drive, they harrowed in the oats with this improvised team.

I relate this story to show how resolute my grandmother was. I do not believe that the Lord requires of any man that he should neglect the wife in order to serve other people. The Bible says we shall forsake father and mother and cleave to the wife. My grandmother, however, bore all these privations and hardships uncomplainingly and felt that she was doing no more than her duty.

Valued Education

The church to which we all belonged was located near "Woodbine." This was four miles from my grandfather's home. Many times, when my grandfather was away from home, my grandmother would ride those four miles on horse-back to the church for the evening service and go back home alone after the meeting. In my imagination I can still hear her sing "Rock of Ages Cleft for Me," as she rides away in the darkness after being us goodnight.



Lucinda A. Zinn, the mother of W. D. Zinn.

I have never known a more cheerful woman. She lived to the ripe age of ninety years. She had a very happy disposition, and spent the last few years of her life a cherished member of our household.

My mother had an insatiable thirst for an education. At a very early age she became an incessant reader. The tallow candle was about all the artificial light other than the wood fire that homes had in those days. Even the candle was expensive. My grandfather was not a man of much money, as I have already said, he gave his time to ministering to others.

Economy was practiced in this well as in most of the homes of the day. In order to save the candle, mother often provided herself with lot of kindling wood and spent many hours at night sitting by the hearth reading, making a light by throwing one splinter after another on the fire. I wonder how many of our young people today would pay that price for an education!

My mother was a student at what was called Rector College, located in Pruntytown, W. Va. In this school she obtained part of her education, but the larger portion was obtained around the fireside in the home. In spite of difficulties she not only acquired a good knowledge of the English language but became proficient in Latin and Greek as well. She studied the sciences being particularly well versed in astronomy.

I taught more than twenty terms school before and after her marriage to my father.

Cure for Quick Temper

One of the first schools I attended was taught by my mother. This reminds me of an incident that occurred in this connection. I was studying arithmetic and had been trying to solve a problem in long division. Many unsuccessful attempts at the solution of the problem had caused me to lose my temper. In a rage I flung the arithmetic to the outside corner of the school room. Sooner had I done this than my mother, the teacher, marched promptly to my desk, commanded me to arise from my seat and gave me a well-deserved thrashing. I was not very severely shocked or surprised, for I had

The Weed Hog Amazed 4000 Farmers

A short while back 4,000 farmers saw a demonstration of a machine which no rain had fallen for weeks.

The cause of their amazement was the WEED HOG—a new type of harrow.

The WEED HOG was taken into a field of stubble on which no rain had fallen for weeks.

But the WEED HOG with its long SPIRAL teeth of tempered spring steel, dug in FLOW DEPTH, plowed up the ground, ripped out the stubble, mixed it with the soil and left the land ready to seed.

And not a single WEED HOG tooth stretched, bent or broke.

The WEED HOG was then taken into corn stubble 12 inches high where it repeated the performance.

The farmers who witnessed this job expected to see the WEED HOG clog, but their admiration knew no bounds as it ripped up the ground and stubble without clogging.

Next the WEED HOG was taken to a piece of fresh plowed ground to test as a seed bed breaker.

Again its SPIRAL TEETH dug in FLOW DEPTH, broke up lumps and clods, pulverized the soil, worked the humus down deep and left a fine, deep, well-mixed potato seed bed. Incidentally, it dug up a hush of spuds that the digger missed.

A REMARKABLE IMPLEMENT

The WEED HOG is fast making other types of harrows, especially the spring tooth, out-of-date.

For it does everything a spring-tooth harrow does and lets it do it faster.

The WEED HOG'S SPIRAL TEETH may be set to cut from 1 to 12 inches deep. They may also be spaced on the tooth bar as desired.

The WEED HOG is about the only implement that can be used in stony, rocky soil. Its teeth get down under and alongside stones and rocks, thoroughly work the soil WITHOUT BREAKING, BENDING OR STRETCHING. They are GUARANTEED FOR LIFE against this.

BEST FOR ORCHARDS

The WEED HOG has no equal as an orchard tool. It breaks up sod, keeps weeds down and mulches the soil.

FAST WORKER

The WEED HOG is a fast worker—especially in trash and barnyard manure for it works deep with practically no clogging because of its extremely rugged, FLEXIBLE frame and the ABSENCE of the usual trash-dragging front bar.

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similar experiences at home.

Here let me say to the parent who is afraid to punish his child for fear it may not love and respect him later in life, that in my judgment this is a mistake. In our home my mother did most of the chastising and, while I have great respect for both of my parents, if there is any difference it is in her favor. It was she who subdued my stubborn will and developed in me a more wholesome view of life. But this chastising was not always done with the rod. As I remember it now the punishment that pierced my heart most severely and was the most lasting came about in this way.

No Love Like a Mother's

After I had disobeyed my mother and she had punished me with the rod, she often took me into her private room and kneeling down, with tears streaming down her cheeks, she implored her Heavenly Father to have mercy on her erring boy and to help her bring him up in such a way that he might be a blessing to the world. Ah, my dear readers, in imagination I can hear those pleadings and see those tears as plainly as I heard and saw them sixty years ago. True, it is that there is no love like that of a mother.

My mother lived nearly forty years after the death of my father. For many years we lived with her, that is, she was the mistress of the home. When, on account of the infirmities of age, she was forced to give up the cares of the home, she lived with us and my wife became the mistress of the home. As will be disclosed in later chapters of this book, I have been a very busy man. That is, I did not feel that I could afford to spend as much time with mother as I would have liked. Often when I went into her room she would look up and with a pleasant smile say, "Can't you sit down and talk with your mother awhile?" Those are also words that ring continually in my ears and I can say, without any reservation whatever, that the recollection that I failed often to comply with her request gives me more anguish of heart than any other thing I ever failed to do.

A Business Woman

Aside from being well posted on a great variety of subjects, my mother was a splendid business woman. The late Samuel Woods, at one time judge of the Supreme Court of the State of West Virginia, paid her this compliment: "I consider your mother one of the best business women and better posted on the topics of the day than any woman I ever knew." I felt that this was no little compliment to be paid my mother by one having the judgment and wide acquaintance of Judge Woods.

When I think of the character of the one who gave me birth and who did everything in her power to incline the twig the way it should grow, and then think of how little I have done for the world, I not only am ashamed of my accomplishments but I feel that I have never been duly grateful for the mother of whom God made it my privilege to be a son.

For Poultry Protection

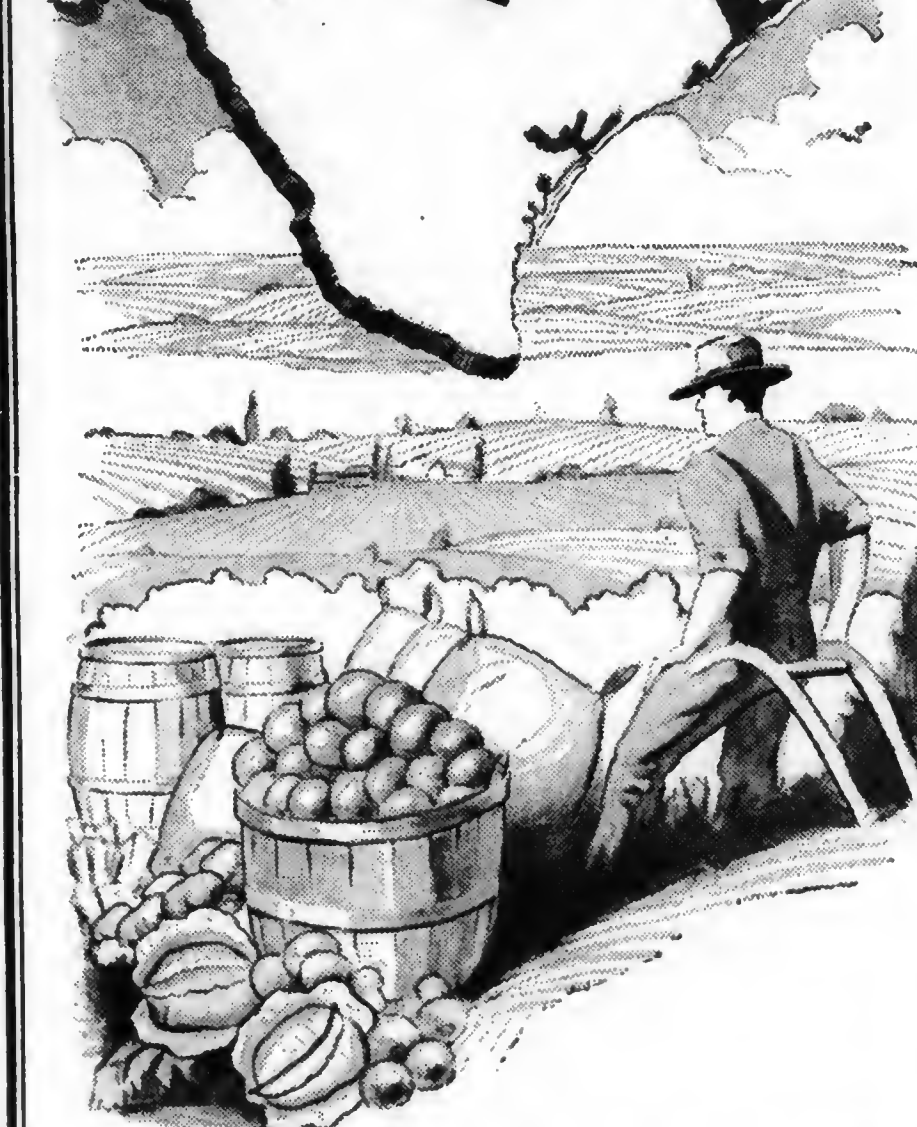
POULTRYMEN in many sections of Pennsylvania are pestered with chicken thieves. How to prevent this nuisance is a common topic of discussion among them.

An active shotgun well loaded still proves to be an effective check. Appeals to the State Police force have in a number of cases brought arrests and a check of the nuisance. Many poultrymen are turning toward the tattooing of their initials on the inside wings of their poultry. While this will not necessarily stop the stealing it is a means of recognizing birds after they are stolen.

There is no doubt that the State Police force today offers one of the best means of breaking up these gangs of chicken thieves. But to make its work most effective, it is important that all cases of theft be reported to it promptly.

M. H.

South Texas



HERE is an empire in the making. Sunny skies, a mild climate, rich soil and abundance of water for irrigation have attracted farmers from almost every state in the Union. South Texas is developing at an almost unbelievable rate, yet the surface has only been scratched. Here are unusual opportunities for energetic, ambitious and big visioned men who want to work their lands the year around, who want to better their incomes and live in a pleasant, hospitable climate.

Chief of the more rapidly developing sections of South Texas are "the Winter Garden," south and west of San Antonio, and the Lower Rio Grande Valley at "the Tip o' Texas". In both of these production of citrus fruits, winter grown vegetables, nearly all kinds of staple crops, dairying, poultry and live stock raising offer a wide range of profitable farm activities.

The advantages of these sections are set forth in new illustrated booklets which are yours for the asking, issued as a part of the Missouri Pacific Lines' efforts to further the development of South Texas. Address . . .

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which is of course the feed bill, as every dairyman knows.

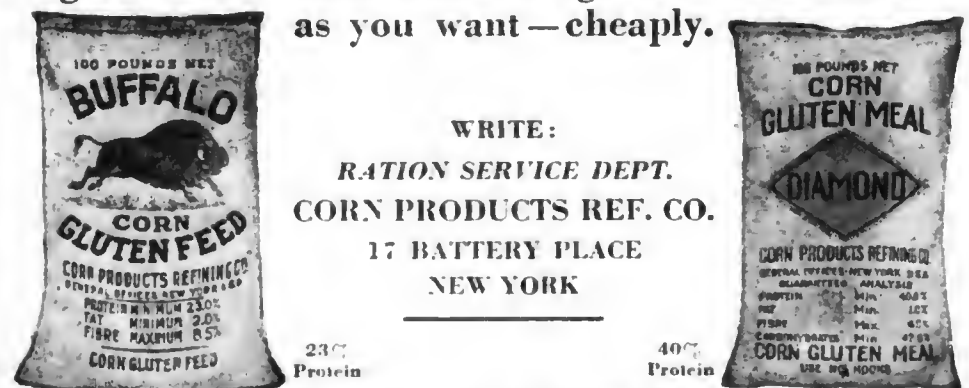
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Farm and Dairy

By L. W. LIGHTY

EROSION or washing away of the soil is a problem on the great majority of farms. Always the finest and best soil goes, the soil with the most and best plant food. At the same time the gutters, gullies and ditches that zigzag down the incline render the use of many implements impractical.

Even on a gentle slope some soils will erode rapidly. I watched a two-hundred-acre farm without any real steep slope wash away gradually so that from a very productive farm it came down to an almost nonproductive farm. It was sold lately at \$13 an acre, which was comparatively a very good price for it and it would have brought much less had it not been adjacent to the solid through road. It required forty years of neglect to accomplish this.

I just read a statement made by one of the guessers in the Department of Agriculture. His figures are appalling, but from personal observation I think his guess is quite within bounds and possibly too low. He estimates that 1,500 million tons of soil carrying 126 billion pounds of plant food is annually lost by erosion. I am not sure if I know what a billion pounds really is, but after observing for half a century the hundreds of farms that were ruined or nearly so by erosion I am inclined to credit any figures a fellow sets down when the whole country is concerned.

A Perpetual Fight

But I am concerned only with my farm, as you are with yours, and mine has been a pretty big concern from the very start. Fully a third of it was denuded completely when I got it. That is, all the top soil was gone and in places the gullies and gutters were from two to six feet deep. I conquered in so far as to enable us to use any kind of implements over the entire area. But to keep the newly made soil from washing away has been a problem and in fact a fight to this day. During the heavy freshets the water gathers in the old depressions and it will start gullies.

Often when the frost is coming out of the ground we have heavy rains. The earth is heaved and is very loose. In a few hours a number of ditches will be started that have to be attended to at once or the damage will be serious. Promptly I would place obstructions in the ditch like evergreen bushes, corn fodder or swale grass, but to hold it in place is a troublesome matter. I would drive stakes or weigh it down with stones, but these are a nuisance when we came with the implements later.

I just ran across an idea in the Kansas report of their State Board of Agriculture that I shall promptly make use of. The device looks just like the original Breed's weeder of long ago with the handles and shafts eliminated. A two-by-four stick is used. Half-inch iron rods are inserted in this two to three inches apart and two to three feet long. After the soil catcher and holder has been put in the ditch this device is inserted and stuck well down into the soil across the ditch. This is movable and when we want to use implements can easily be moved from place to place. If the stick is cut and joined in the middle with a hinge it can be handled and used more conveniently.

I am sure this device will be a great help, because if we can keep the swale grass or other earth catcher in place until it is weighted with earth all is well and the ditch closes itself. After applying ten to fifteen dollars worth of lime and fertilizer to the acre we cannot afford to let it go down the incline by erosion if we can prevent it. I have found by eternal vigilance we can do this.

To Limit Production

It is unfortunate that widely circulated periodicals should print misleading material relative to farmers' farming, but I find plenty of it in my reading. I just read an article most splendidly written on limiting production, but the writer displays the most woeful ignorance of farm conditions, and yet he proposed to settle the question of limiting production for all time.

He cited for his example a common everyday manufactured commodity and indicated how easy it was when a surplus accumulates simply to slow production by ceasing to operate a certain number of machines. So in the same way all the farmer need do is to put out of commission so many productive acres and prevent the production and the price is stabilized. Simplicity simplified that office desk.

This expert logician knows that loom will weave practically the same number of square yards one year or the other, but he does not know that an acre of soil may produce ten times as much of a crop one season as another. Here is where his pretty theory goes to smash.

My records show I had an area of corn and it yielded 1,480 bushels. A year later the same area was in corn and it yielded 510 bushels of a poor quality corn. This soil in the meantime had been improved in fertility and as a mere machine should have yielded ten per cent more. But weather conditions and pests unforeseen and uncontrollable reduced my crop to nearly two-thirds, while the acres remained the same.

The practical farmer of course knows all this, but the writer of magazine articles doesn't know he doesn't know. Thanks be the feeding of the world is not in the hands of the logician.

Changeable

In the old almanac where the weather was foretold for a year or most the half we were told was changeable, and so it turned out most of the time. That is the way with the weather and we are used to it. But the constant changeableness of the laws, regulations and rulings that govern states and communities often are annoying, unpleasant and may be destructive.

A number of years ago legal provision was made to encourage the growing of trees along the highway. Every land owner who would plant and start growing a certain number of trees was paid a small sum for the helping to beautify the landscape and bring the benefit that growing trees bring to an almost treeless country. Not many trees were thus planted that I know, but a few roads that travel occasionally show the advantage and wisdom of that plan.

But at this time the rulings are to destroy all the trees on both sides of the road regardless. I watched the destruction on a little stretch of road this summer. Among the many trees cut down was a line of the most beautiful weeping willows. Since the road has been finished I am convinced the trees would never have interfered with traffic and why they were destroyed is an enigma, because they were a thing of beauty.

The old saying is that it takes God a hundred years to grow a large oak but a fool can destroy it in an hour. We need not go far for verification.

A Feed Mixture

Please send me a formula for mixing feed for dairy cows. My roughage is mixed clover and timothy hay and corn fodder. I feed about the same amount of each.

I have my own grinding outfit. I use plenty of ear corn and some wheat. I wish to mix one bushel of ground

Get Bigger Profits from Present Milk Prices



Turn Your Barn into a Money Maker. Increase the yield of your herd; avoid costly accidents; cut down labor; save feed and time. Thousands of farmers have brought their farms up to date—increasing their profits—through the use of Star Stalls, Stanchions, Pens, Cribs, Water Bowls, etc.

Star Barn Equipment—the farmer's best bet as a money maker—is the result of over 40 years of experience by men who know farming. Let Our Engineers Help You Plan. Send us a rough sketch of your barn floor, stating how many cows you have and we will furnish floor plan blue print without cost.

Get Our Big 270 Page Book Free from cover to cover this illustrated book is packed with ideas and plans on cost saving that will increase your earnings, and cut out work, worry and expense.

Dept. P-1
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Please send big 270 page book. Expect to receive: ☐ Build ☐ Ventilate ☐ for Cows ☐ Remodel ☐ Equip

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STARLINE

It Pays To Buy Good Machinery

A GOOD ensilage cutter pays for itself in one or two seasons. After that, it puts extra profits in its owner's pocket for 10, 15 and even 20 years. Papec Ensilage Cutters must be good because there are more of them in use than any other make.

Here are some Papec features that will appeal to the farmer who knows machinery:

1. Extra large, flaring table for feeding direct from the wagon.
2. Can elevate 80 feet at 400 r. p. m. without plugging.
3. Better than one ton per hour capacity for each horse power applied.
4. Adjustable lower casing to offset fan wear.
5. Six fans with replaceable fan plates.
6. Knives easy to adjust and sharpen.
7. Rockwood fibre driving pulley to prevent belt slippage.
8. Few gears and no springs.
9. One-piece frame to insure permanent bearing alignment.

The new Cutter Catalog gives details of Papec construction. Write for it today.

PAPEC MACHINE COMPANY
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End of Road Grinders—1149 Coppers

RIB-STONE SILOS

Noted for unusual quality, reliability, beauty, life-long guarantee.

Rib-Stone Concrete Silos are making friends wherever sold. SPECIAL DISCOUNTS.

Early Buying—for Early Erection. Now is the time to buy—for cash in time. Let us donate your investment. Rib-Stone Silos pay for their cost. "GOLD MEDAL" Silos—13 years tested, permit home construction.

Permit initial financing. Rib-Stone Concrete Silos, with exclusive features, are completely by us and guaranteed unconditionally. Ask for Proof. Save money. Send for colored drawings, discounts.

RIB-STONE CONCRETE CORPORATION
Box 406, Le Roy, New York

If you saw the advertisement in Pennsylvania Farmer when you are writing to our advertisers

It's some job to lead in Illinois



When cows do as well on a dairy feed as H. P. Zurbriggen's did on Gold Medal Dairy Ration, a lot of talk about quality becomes unnecessary.

Mr. Zurbriggen's herd is one of the highest producing herds in Illinois. Not long ago he led the entire State for three consecutive months.

Mr. Zurbriggen says:

"This high production I attribute to Gold Medal Dairy Ration as a big factor."

Gold Medal Vitamin Dairy Ration contains every element necessary for big milk production, and for maintaining herd health. It takes the guess work out of feeding because it was proved in countless tests under actual farm conditions before being offered to you.

Gold Medal Vitamin Dairy Ration is rich in vitamins, high in digestibility and made from clean, wholesome ingredients. It contains no filler or off-grade material.

Every bag is guaranteed to satisfy you, or your money back. Give it a trial—and you'll have healthier cows and bigger milk checks.

WASHBURN CROSBY COMPANY
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FREE DAIRY BOOK

We are offering as our contribution to the dairy industry a book entitled "More Milk—More Money" written by two foremost dairy authorities, covering breeding, feeding, sanitation and production methods. It's yours for the asking. Use the coupon.

GOLD MEDAL FEEDS

"FARM TESTED"

Eventually why not now?

Please send me free copy "More Milk—More Money" (Copyr. G. M. Inc., 1929).
Name _____
Address _____ Town _____
State _____ My Feed Dealer is _____

wheat with five bushels of corn and cob meal. What do I need in addition to these two grains to make a balanced grain ration? C. B. Mason.

I WOULD suggest that you make the following mixture after you have ground together one bushel of wheat with five bushels of ear corn, 100 pounds of corn and wheat chop, 100 pounds of ground oats or wheat bran, 100 pounds cottonseed meal, 100 pounds of linseed oilmeal, or peanut meal or soy-bean meal. Feed this grain mixture to Holsteins and Ayrshires at the rate of one pound of grain for approximately four pounds of milk. Feed Jerseys and Guernseys one pound of grain for approximately three and one-half pounds of milk, in addition to all the roughage they will eat up clean two or three times a day.

Trouble with Butter

In the winter I have been having trouble in making butter. I think the cream is sour enough. It just swells and foams till the churn is full and keeps that way.

Reader.
DIFFICULT churning is frequently encountered at this time of the year when the cows have been fresh for a considerable period of time and have been receiving no green or succulent feed.

I would suggest that you heat the milk nearly to the boiling point, separate and cool the cream and handle it as usual or else that you heat the cream to 110 degrees F., hold it at this temperature for a half hour, then cool the cream to churning temperature and hold it at that temperature for one hour or more prior to churning.

At this season of the year it may be necessary to raise the churning temperature to between 65 and 70 degrees F. under exceptional conditions.

A. A. B.

C. T. A. Reports

Cumberland County
THE Second Division finished its second year October 1, 1929, with 23 members. Their records show that there were 344 cows in the Association during all or part of the year. The results for the two years' work in the Association are as follows:

Year	Av. No. Cows	Lbs. Milk	% Fat	Lbs. Fat
1927-1928	221.75	8334	3.4	285.7
1928-1929	248.91	9328	3.5	332.0

Thirty cows produced over 400 pounds of butterfat. The complete list of these is too long to publish here.

J. P. Shughart, W. I. Galt, Tester. County Agent.

Oxford
THE Oxford Cow-Testing Association finished its second year, January 1, 1930, with 24 whole-year members. In addition four members were in the Association for part of the year. The total number of cows for all or part of the year was 543.

Thirteen herds with an average of five or more cows exceeded an average of 300 pounds of butterfat. A complete list of these herds follows:

Owner	Breed	Lbs. Milk	Lbs. Fat
Norman Thompson	G.J.	9123	438.0
Scott Bunting	R.J.	7258	383.5
Reid & Dickey	Mixed	9750	351.1
Maurice Michener	G.J.	6551	335.1
E. England	R.G.G.	6817	327.6
Harvey Chase	R.J.G.J.	6900	326.1
Howard Wollaston	R.J.	6263	317.3
Dr. Wm. B. Ewing	R.G.	6903	313.0
J. S. Reiser	Mixed	7530	312.8
Norman Fell	R.G.	6692	311.2
Edgar Haines	G.G.	6697	310.0
Thomas Sloan	G.H.G.J.	8409	307.3
Lewis Brown	Mixed	7788	300.0

Jos. S. Oberle, Charles M. Pyle, County Agent. Tester.

THE GENTLE BULL

Once a farmer had a bull. 'Twas hard to find his "double." Why, sir, that farmer led that bull Without a bit of trouble.

However, sir, there came a time When bull changed his way. The farmer sleeps beneath the sod. The bull still lives today.

—Bill Bunkum.



"As thou sowest, so shalt thou reap"

FRUITFUL indeed is the money spent by the farmer for high quality seed. For here is not only an investment that is returned many-fold, but also a crop insurance of the highest order. In an item so essential to success, it is indeed shortsighted to gamble on the long chance of saving a few dollars by using seed of uncertain origin.

High quality seed is chosen and certified by men who are scientifically and practically trained in just this work. When certified seed is used good stands and high yields are insured, other factors being equal.

Sow high quality seed and reap, not the "tares," but the most profitable, marketable crops your acreage can produce.

Agriculture and transportation are linked closely as the nation's two basic, essential industries. Experience has shown that, in the one as in the other, there is no greater asset than far-sightedness.



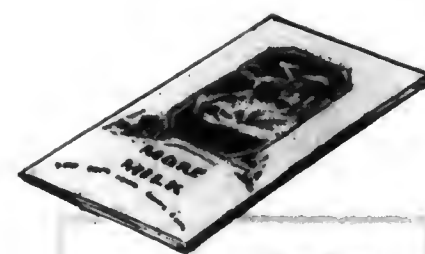
New York Central Lines

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Michigan Central Station, Detroit, Mich.
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TOBACCO
NATURAL LEAF TOBACCO.—Guaranteed, Cheating, 5 pounds, \$1.00; 12, \$2.00; Smoking, 10, \$1.50; Pipe, 10, \$1.00; 20, \$2.00; 30, \$3.00; 40, \$4.00; 50, \$5.00; 60, \$6.00; 70, \$7.00; 80, \$8.00; 90, \$9.00; 100, \$10.00; 110, \$11.00; 120, \$12.00; 130, \$13.00; 140, \$14.00; 150, \$15.00; 160, \$16.00; 170, \$17.00; 180, \$18.00; 190, \$19.00; 200, \$20.00; 210, \$21.00; 220, \$22.00; 230, \$23.00; 240, \$24.00; 250, \$25.00; 260, \$26.00; 270, \$27.00; 280, \$28.00; 290, \$29.00; 300, \$30.00; 310, \$31.00; 320, \$32.00; 330, \$33.00; 340, \$34.00; 350, \$35.00; 360, \$36.00; 370, \$37.00; 380, \$38.00; 390, \$39.00; 400, \$40.00; 410, \$41.00; 420, \$42.00; 430, \$43.00; 440, \$44.00; 450, \$45.00; 460, \$46.00; 470, \$47.00; 480, \$48.00; 490, \$49.00; 500, \$50.00; 510, \$51.00; 520, \$52.00; 530, \$53.00; 540, \$54.00; 550, \$55.00; 560, \$56.00; 570, \$57.00; 580, \$58.00; 590, \$59.00; 600, \$60.00; 610, \$61.00; 620, \$62.00; 630, \$63.00; 640, \$64.00; 650, \$65.00; 660, \$66.00; 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Written in the language of the layman by a veterinary authority.

Here is an unusual new book for owners of dairy cows. Authoritative and complete—fitted to the everyday reference needs of the cow owner. Tells how to quickly recognize cow ailments by their symptoms—how to treat them and reduce your loss from disease. Illustrated—and full of general dairy hints and information. Send today for your copy.

Pep up the laggards and DOUBLE your profits .

IF YOU are tired of carrying your dairy through the winter with little or nothing to show for your hard efforts—try this new plan. NEW to you, perhaps, but tested and proven by thousands of money-making dairymen from coast to coast.

You'd not expect smooth-running, efficient winter service from a motor car adjusted, lubricated and fueled for summer use. Neither can you expect your cows to produce profitably under the terrific strain of winter feeding conditions—without special aid and support for the digestive and milk-making functions. Winter dairying disappoints when expensive feed goes to waste—fails to be converted into milk. It only takes a few laggards in the herd to eat up the profits of the good producers.

Use KOW-KARE for winter conditioning

Conditioning of the dairy herd during the period of barn feeding is the new money-making plan now coming into general use. Instead of a health-destroying drive to get a



disappointing yield from overworked cows, KOW-KARE conditions and regulates the digestion and assimilation—makes it easy to convert dry, hard-to-digest foods into a normal, profitable yield. This famous formula of Iron, the great builder and blood purifier, and medicinal herbs and roots costs only a few cents per cow per month, helps the cow to conserve her feed and ward off disease.

Try the KOW-KARE conditioning plan yourself on the laggards NOW. Remember that in an average dairy an increase of only 10% in the milk yield will *double the net profit* of the herd. The extra quarts are decidedly worth going after.

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The ordeal of calving is a serious drain on the productive vitality of any cow. Many serious ailments have their origin at this

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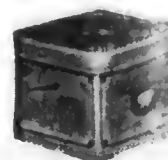
For cows in need of minerals, an inexpensive mixture of recognized conditioners of value is made by mixing 30 lbs. salt, 30 lbs. fine-ground limestone, 30 lbs. feeding-pose bone meal and four cans (large) KOW-KARE. For well under \$6 per hundred you will have an unbeatable mineral. Use 80 lbs. of this mixture to a ton of grain.

KOW-KARE feeding directions are on each can. Sold by drug, feed, hardware and general stores—\$1.25 and 65c. If your dealer is not supplied we will mail, postpaid.

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PENNSYLVANIA FARMER

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1877

Consolidated with PENNSYLVANIA STOCKMAN and FARMER

January 18, 1930



Philadelphia

Pittsburgh

Harrisburg



"It sure does get them—all four at once and just one (1) late spraying is necessary"

the most economical delayed dormant spray on the market today"

Presidents and past presidents of several State Horticultural Associations—leaders among growers—are using Sunoco Spray. There are good reasons.

SUNOCO is economical because—(1) It costs less to buy—contains no water. (2) It covers more tree surface—(3) It will not freeze—(4) It saves time and time is money. Always ready to use.

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TEMPLE CORPORATION OF
CHICAGO, says:

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Farm Facts and Fancies

By ALVA AGEE

THE fact is that farming in this country is on the up-grade in respect to income. Nobody knows how much climbing it will do, and "climb" may seem a too ambitious word to use anyway, but it is up a bit, and quite a bit. The reflection is seen in a better feeling about land prices. They have been hit from three directions at once, and the wonder is that their bad situation was not worse.

In the first place, income from land did not encourage people to buy. That was serious enough. On top of that have been the forced sales and the effort of banks and other institutions to get rid of farms and loosen up their assets. That was a big influence in many states, and continues to be. The third sort of incessant pounding on prices has been the constant advertising of doleful conditions. It was believed to be in the interest of agriculture for which national consideration and aid were needed.

This third influence is now far less exerted, the second one has eased up, and farm income is better. The net result is that farm prices are to be given a fair chance, and that means that the market for farms is to be less depressed, and is less depressed now. More hopefulness and cheaper money are favoring land prices.

Others' Troubles

Much distress is relative. It is hard to be poor when one's associates are rich. It has been said right along that everybody has been prospering in recent years except the farmers, and we have overlooked the plight of hundreds of thousands whose income stayed fixed while the cost of living went way up.

Nearly every reader knows some folks in this class. Elderly people who depend on income from mortgages, annuities, bonds and like investments, all sorts of folks who had fixed incomes from savings made by themselves or by relatives for their support, a great company have found that their incomes were cut about half in two.

Some of them had made liberal provision, and the cut leaves them outside the class we have to pity, and others—and a host of them—are necessarily living on a poorer scale than hard work and saving earlier in life had led them to expect. They have been caught in the jam the war produced.

Cost of Services

We are told that the great industrial prosperity of this country in recent years was possible only through the high earning power and purchasing power of the workers. That is fairly obvious. Labor, using the term in its restricted sense, and all other workers of all sorts, has its price for service rendered reflected in the price we pay.

More serious for many of this great company of people dependent on fixed income is the price paid for services outside of the strictly industrial class. I am in contact with some of these folks, and the fear of the draft on their savings that illness may bring hangs over them. Anything they want or need costs them in a way they had not figured when capital was accumulated.

I believe it is a good thing that earning power is high, and the general level of living is much higher as a result, but there are people who see only hardship in it.

An Intelligent Man

The man driving the delivery wagon looked intelligent, and I was pretty sure he was so when he cheerfully made the guess, "One of these days none of us will work over five days a week." Of course he was not thinking

of farmers, but of employees in factories, stores and all that.

I should like to guess that if depression in industry becomes marked in the first half of this year while the basis is being made for a saner and surer prosperity, an impetus will be given to the movement for a five-day labor week. The argument will be that the available labor should have better distribution. Some trades now have the shortened week, and the trend that way is distinct.

The old socialistic plan of slicing off a part of the savings of the thrifty and dividing among those who have less seems crude compared with this new method of leveling. The arguments in favor of the five-day week for people rendering services of many kinds may seem plausible enough to some, but the cost necessarily falls back on those who have some accumulations of capital, either in land or some other form.

Doing the Driving

Forecasts in farm production are presumably an aid in planning for one's own farm. Others' "intentions" when known, should modify our own. Theoretically all this is fine, and in a way it has big practical value, but I have known many successful farmers that made no changes in acreage of crops year after year, and the rotation had been fixed so that the farmer could take care of his work on time and not let it do the driving.

It does not work very well to expand the acreage of potatoes or any other crop in a farm 25 or 50 per cent one year and to drop off the next. A forecast might indicate the wisdom of the change, but the farms I have in mind ran smoothly because a certain acreage was easily handled, and the work was well done, and I think the owners were better off than they would have been if they had made much change each season.

This is rather too old-fashioned thinking for a day when we have more data and should get value out of the information, and people who are specialists, and those with a habit of plunging, should make use of it, but the farm that easily carries a certain amount of livestock, and has a pretty well fixed acreage of crops, averages up well in the long run without paying much attention to what others are proposing to do. For one thing, the work is kept in hand and gets done well.

Forecasts that favor some cutting down have a surer value than those which lead to expansion and partly because the work does less crowding.

Diet Advisers

Citrus fruit growers made a big success in calling attention to the virtues of orange juice. The demand for the fruit increased. Now scores of fruits and vegetables have their health value boosted over the radio and in the newspaper health columns.

Nuts had their inning many years ago, milk rightly had and has a big place, and the corn bread and pork that gave strength and long life to the southern negro remain nearly alone with virtues unheralded. If we would return to dinners of corn bread, pork and beans, there would be less need of resting two full days out of seven—except, perchance, in the case of a few who might enter endless rest.

THE COVER THIS WEEK

WE may debate the quality and economy of home-made vs. bakery products almost indefinitely, but thousands of women know that the bread wagon makes less work than the bread board. However, the march of progress does not disturb the Taos, New Mexico, Indian woman shown on our cover this week as she takes the "staff of life" from her primitive oven.

"That's the sign of MORE QUALITY for the same money"

"LOOK here . . . do you see that—that Red Ball? Well, that's how you tell 'em. More value than ever before—without any boost in the price. And, believe me, that's saying a lot. Dad always wore 'em, and the best was none too good for him."

Yes, "that's how you tell 'em". The Red Ball trade-mark has been the farmer's guide for generations in his choice of rubber footwear. And today he's more loyal than ever. He knows the Ball-Band line keeps pace with his changing needs with new and improved footwear year after year.

The great Ball-Band factories prepare many different compounds of live, tough rubber, all devoted to one purpose—the manufacture of lasting footwear. Every item in the line is made up of several compounds, each selected to give greatest service for the job it must do—one for the heel, one for the sole, one for the toe, and so on. That's what gives this built-to-the-foot line the reputation for more days wear. Stout linings and fabrics are knit in Ball-Band's own mills at Mishawaka for—and only for—Ball-Band footwear.

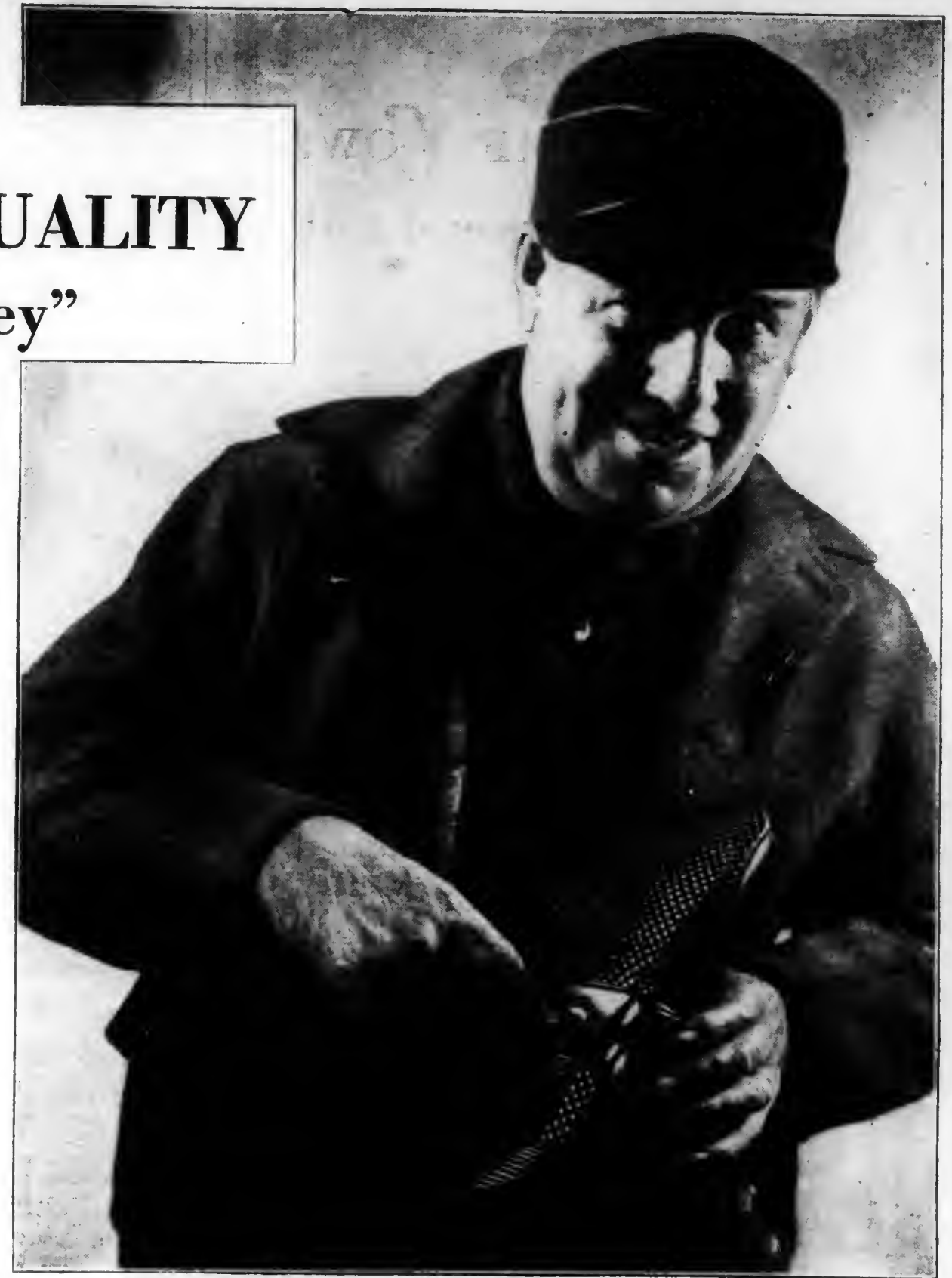
Look for the Red Ball trade-mark on the rubber footwear you buy.



"THE BETTY"—a dainty style with lacy cuff. Easy to put on and take off because of its simple snap-fastener, adjustable to fit. This styled-to-the-shoe galosh is made in two-tone combinations in wool jersey, "Rayton" and cotton jersey.



A SMART NOTE in style footwear—the "easy-to-clean" Savoy all-rubber galosh. Combines lightest weight with complete protection. Each Savoy is "styled-to-the-shoe" and fits the foot and ankle as though moulded over them. Comes in a variety of pleasing colors and beautiful patterns.



There are 800 styles to choose from, including the famous Mishko-sole leather work shoe. There's a Ball-Band dealer near you (if not, write us). Ask him for Ball-Band by name.

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SNUG FITTING CLOTH ARCTICS. Deep warm, bitter cold, need hold no fear for you—if you wear these snug fitting Cloth Arctics. Also made in a 6-buckle height and in all-rubber styles in various heights.



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BALL-BAND
Built-to-the-foot

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OLD DAISY

pasture experts speaking:

"We cows get good grazing on our farm. Our Boss limes his pasture and gives each acre 600 pounds of his potato fertilizer when grass first starts in the spring. We work only a couple of hours to fill up on fine green feed. Our energy is saved to make milk."

"We had a hard time before our pasture was fertilized. All day and half the night we were searching for good grass. We had to be fed in the barn to keep us producing. Our Boss got tired of most of his milk check going for feeds. He decided to fertilize an acre of pasture for each cow."

"Pastures, like potatoes, are a cash crop and need balanced plant food. Potato fertilizer, containing plenty of potash, brings back clovers and good grasses and crowds out weeds. It keeps our pasture in tip-top shape. No wonder we are contented cows."

FREE—MAIL THE COUPON

Agricultural and Scientific Bureau
N. V. POTASH EXPORT MY-
of Amsterdam, Holland
19 West 44th Street, New York
Please send me information
on the proper fertilization
of pastures.
Name _____
Address _____
P. E. J.



These three plots in a Maryland pasture show the value of the proper fertilizer treatment. The plot at left was fertilized with superphosphate alone. The center plot received superphosphate and limestone. The plot at right received limestone and a complete fertilizer containing plenty of potash. During an extremely dry season the right plot yielded 7,411 pounds more green weight than the center plot.

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of any kind or condition of Manure; therefore
increases Soil Fertility and assures largest crops—

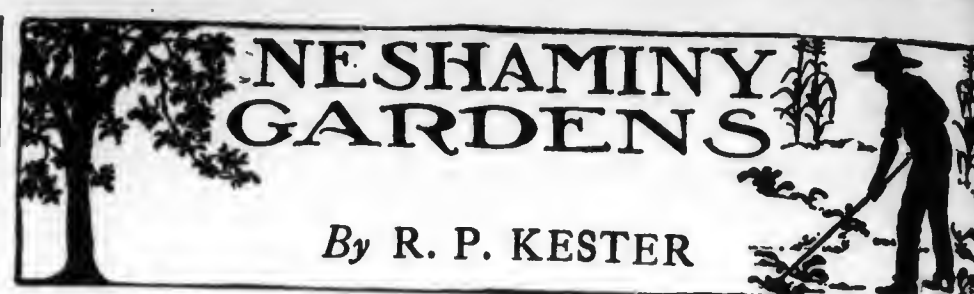
The beaters cannot wrap and must deliver the manure to the distributor in an even stream. The 16-point Distributor completes the pulverization and spreads the manure evenly over every square inch of ground.

The "Non-Wrap" Spreader appeals to the farmer's good judgment. He sees its big advantage, the labor saving and ultimate profits. Strongly built, low down and easily operated. Write today for big folder giving full details of the oscillating beater arms and why they do not wrap.

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FARQUHAR

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SEE EXHIBIT
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HARRISBURG
January 22—24, 1930



By R. P. KESTER

PART of the joy that comes to one who writes is derived from the letters received from readers. During the past month I have received an unusually large number commenting on subjects mentioned here—garden tractors, the tariff, social customs, farm relief, flowers, children, mulch paper, log-rollings, the schools, prohibition, etc. Most of these I have answered, or will answer, by mail. Every one contains something which would make interesting reading if passed on. This, of course, is impossible, but I shall continue quoting from some which have a bit of advice or information of value to others. I wish to repeat my expressions of appreciation from the many friends who have written and hope they will continue to feel free to write any comment or criticism that comes to their minds.

We dug up some of our parsnips during the warm spell the first week in January. They grew well and showed great promise last fall. While they are big enough, they are not nice. They are prongy, scraggly things and are hard to prepare for cooking. What's the reason? Is it due to the fact that the summer was so dry? I have thought that they probably sent out several root prongs in order to get more moisture. Usually, we have grown fine, clean, straight parsnips. To forestall a possible explanation from somebody I will state that the soil is deep and has plenty of humus.

Friendly Talks

By
Edgar L.
Vincent

A reader in Bedford county, Pa., writes as follows:

"I would like to hear from readers of Pennsylvania Farmer who tried paper mulch last summer. I tried it on strawberries and garden vegetables. I used boards, two-by-fours and stones to hold it down. Where this material was on the paper, the paper rotted in about two months and weeds grew through the rotted paper. Has any one found a better method of holding it in place?"—C. E. S.

Another reader, this one from Centre county, who has evidently read Neshaminy Garden notes with considerable concentration, says, in part: "I have read your recommendations in regard to blanching cauliflower. I use a different method very successfully. When the cauliflower is ready to head 'kink' the ribs of the leaves and lay them over the tops of the heads. Kink them a little higher to allow for growth of head. I found that by tying the leaves they slip from under the string as the head grows. But by kinking the leaves the head can grow and expand all it wants to and the leaves will lie flat on the head."

"Two years ago a storm blew off a good bit of felt roofing from my barn. There was a good bit of it and I tried it for mulching paper on my tomatoes and had the best crop I ever saw. They were nice, clean and big. But I think the price of the paper is too high, and I do not like the expense. Have been thinking of using a cheaper grade of roofing paper, but I do not know how long it would last. Considering the labor saved, it would be cheap at the price, providing it would last more than one year."

"In regard to dwarf pears, would say I have had good results with Bartlett's; but Clapp's Favorite did no good. Have had splendid success with the plum Waneta. It is something like Bradshaw, but is more solid."

"Thanking you for all the advice I have received from your writings, and wishing you Godspeed for the coming year, I remain, yours sincerely"

V. G.

It is my opinion that the 'ideal' mulch paper would be one that would sell at such price as would not require saving to use another year. In fact, that is the intention of manufacturers now. But can it be used at a profit? That is the final question. I believe in the principle of mulching paper for some crops. The things it must do are to save enough by bigger and better crops, and by the reduction of hand labor, to overcome the cost of paper and its application.

Ninety per cent of the 1929 graduating class of the New York state college of agriculture are engaged in agricultural occupations.

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No. 3

Farm Pests in Ancient Times

By E. K. EVANS

It happened down in Maine some thirty years ago. In the sparsely settled sections many of the churches had resident ministers only in summer when students at a local theological school went out, to practice their eloquence Sundays, and week-days practice their calling. One such student, stating on his rounds of a Monday espied (so runs the story) a parishoner working in his garden.

"Oh, good morning," said the embryo parson. "And eh—what are you doing?"

"Weedin' my beans," said the somewhat terse reply.

"Well, don't you want me to help you?" queried the future servant of humanity, who had never raised beans except from his plate to his mouth.

"Tain't necessary," replied the gardener.

"Oh, but I'd like to help. That's what we're here for, to help one another." And without more ado he climbed over the fence, knelt down at some risk to his trousers, and—lo, after a few moments up came a hill of beans. Then after a few remarks on the joys of farming he moved along and—up came another hill of beans.

"There," he said as he proudly surveyed his harvest. "I've helped you a little anyway. Hope I'll see you next Sunday." And he climbed back and rambled on down the road.

"What did you let him do it for?" inquired a neighbor.

"Har," answered the victim with a resigned smile. "I wouldn't have stopped the little fool if he'd pulled up the whole farm."

Serious Annoyances

Now possibly any study of farm pests should begin with a chapter on the human pests who, if they do not pull up the beans, stand around to ask foolish questions, or give absurd or superfluous advice. Fortunately for them the average farmer is good natured, may even regard them as a diversion. Not so, however, when he confronts the four and six and many legged varieties, or sees where they have been at work. Then his forbearance ends. When it comes to Colorado beetles, and Hessian flies and army worms and corn borers and cotton weevils and all the rest of the "brood of Satan," that in 1904 were estimated to cost more than the United States government, and in 1919 to have destroyed a tenth of our farm crop—why silence will not suffice even though diluted with Bordeaux mixture.

A half dozen years ago out of the 73 "worst insect pests" in our own land 37 were imported. The full list of immigrants at that time included about a hundred Latin names. Many of these, of course, were old acquaintances of the European gardeners; but some, one suspects, were fairly new at the game, like our own Colorado beetle which after living a retired life in the Rocky Mountains broke forth into public notice about 1855. Unlike the Rocky Mountain locust which sometimes sails 200 miles a day with a good breeze, it took him about four years to reach Des Moines and some twenty to gain the Atlantic Coast.

What lured him forth on his long journey? A new and attractive food, the potato, of course—within easy reach, the temptation was too much for him. And so too with other citizens of the insect world. As long as farms were relatively scattered, commerce in the staple foods chiefly local, wild grains handy or as long as some improved garden crop did not entice them away from the rougher herbage

on which they had hitherto fed—why they might worry along, yet have a purely local range or do so little damage that they would hardly be considered pests. For such insects, as for man, modern agriculture and transportation have opened new and larger opportunities.

Bugs not in Evidence

This is probably the reason why the ancient farm-writers gave them so little space on their pages. True, they do refer to some of them, including several—the locust for instance—still doing a thriving business. True, also, the silence of Theophrastus, "the father of Botany" (about 300 B. C.) or of Pliny, author of that wonderful "Natural (and sometimes unnatural) History," does not absolutely prove the others were not on hand. No one knew about bacteria till the development of the microscope in the 17th century, but they were there just the same. Possibly, indeed, in the lost 160 notebooks of Pliny (till his death, in the famous eruption of Vesuvius, he was, like Mr. Pickwick, always taking notes) contained a full biography of a score of modest little caterpillars. But the chances are against it.

And if one urges, "Well, the ancient naturalists were not strong on entomology anyway; while the widespread belief that worms and insects sprang from decaying vegetation, etc., did not stimulate close observation," to this we may answer that they did study the bees closely, even though the drones bothered them, while Pliny has a "king bee" ruling the hive, and Vergil suspects they come from flowers. Altogether then though the ancient farmer had troubles enough, Heaven knows, 'tis probable that some of the bugs had not yet found out where he lived, or else were shyly keeping out of sight till some of his other pests moved on. Of course, as already stated, a number did take a chance and "made good"—from the bug's point of view that is. This was especially true in the vineyards and orchards. "Some diseases of trees" writes Pliny, quoting from Theophrastus:

"Some diseases are common to them all, worms for instance. This the birds are able to detect by the hollow sound procured by tapping at the bark. These

worms even now have begun to be looked upon as delicacies and the large ones found in the pear are held in higher esteem by the epicures and are even fed with meal in order to fatten them."

This way of keeping down the worms has never been systematically studied at our agricultural colleges. Pliny goes on:

"But it is the pear, the apple and the fig that are most subject to their attacks. Of those which infest the fig some breed in the tree itself. They all emit a small, shrill noise. There is a kind of fly that is very troublesome to some fruits, acorns and figs for instance. It would appear that they breed from the juices secreted beneath the bark which at this period are very sweet."

The ants knew better. As to the olive:

"Rain, too, is productive of the caterpillar, a noxious insect which eats away the leaves, and if the sun should happen to shine after this and burn them up, this pest only gives place to another just as bad."

Presumably he refers to the ichneumon which breeds on the caterpillar in accordance with the famous law:

"Big fleas have little fleas upon their backs to bite 'em and these again have other fleas and on ad infinitum."

Remedies Recommended

Coming to remedies, he describes one mixture of sulphur, bitumen, etc., for anointing the trees and vines, then:

"Some rub the pruning knife every time it is sharpened upon a beaver skin—and after pruning with the blood of a bear." Many people preserve apples from caterpillars as well as from rotting by touching the top of the tree with the gall of green lizards."

Probably this last method was scarcely as successful as another too little appreciated till recent years. Nowadays even the most crabbed, tone-deaf farmer listens sympathetically to the prayer of the Birds in the last act of Rostand's "Chanticleer":

"Oh, God of birds, or rather for the Hawk
Has surely not the same God as the Wren,
Oh, God of Little Birds!
Who breathed into our wings to makes us light,
And painted them with colors of his sky,
All thanks for this fair day, for meat and drink—
And thanks for these good little eyes of ours
That spy the unseen enemies of man,
And thanks for the good tools by Thee bestowed
To aid our work of little gardeners,
Trowels and pruning hooks of living horn."

"Tomorrow we will fight borer and blight.
Forgive Thy birds tonight their trespasses,
The stripping of a currant bush or two."

"If man the unjust pay us by casting
stones
For filling field, and wood and eaves with
song,
For battling with the weevil for his bread,
If he lime twigs for us, if he spread
snares,
Call to our memory Thy gentle Saint
Thy good St. Francis, that we may forgive
The cruelty of men because a man
Once called us brothers, 'My brothers the
birds!'"

When one remembers that 95 per cent of the house-wren's food is insects, 65 per cent of the downy woodpecker's, who can keep back an "Amen"? Thus today when the dainty house cat and the shotgun and air rifle have done their deadly work, the weevil is very much in evidence. In ancient times, however, it was the other way. They did not have shotguns. Nor were cats as common. So birds were probably more plentiful and weevils less so.

Unfortunately, it was just a case of nerves on the part of the farmer, of ignorance on the birds' share in farm economy, or were there really not enough weevils to go around? Anyway 'twas the birds which seem to have been regarded as the greater pest. Curious the methods employed at times to escape their visits. One

(Continued on page 15.)

Southern Trip Shapes Up

THE special cars ordered for the Pennsylvania Farmer winter vacation trip to Florida and Cuba are rapidly filling up as reservations reach us daily.

We shall try to take care of late comers, but cannot promise to do so. However, we believe that all those who send in reservations now will not be disappointed.

For detailed information about this trip see Pennsylvania Farmer for January 11, also previous issues. A good crowd of fine people will be on the tour. If you would like to go along mail us request for reservations, using the coupon printed below.

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Enclosed find deposit of \$20 per person for reservation on the Florida and Cuba tour. Balance, or \$164.50 per person, will be paid before February 1, 1930. (Remittance should be made by check or money order—not cash.)

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PROLIFIC

THE London Livestock Journal reports that a sow, the property of Mr. T. Fardy, Foulksmills, County Wexford, has given birth to 26 pigs, "all in strong healthy condition." Her two previous litters were 18 and 19 respectively, or a total of 63 pigs in three litters. Any American hog raiser any remarks to make?

A MODEST QUESTION

AN official announcement says that several bureaus of the Department of Agriculture, representatives of forty-one state colleges and fifteen representatives of the Federal Farm Board will participate in a series of conferences prior to the publication of the agricultural outlook for this year. Wouldn't it tone up this crowd a bit to include a few agricultural editors?

FROM LIFE

WE have known two men of modest means who were breeders of trotters in a small way. Each of them succeeded in producing a speedy colt and in developing it until a long price was offered. One man accepted the \$30,000 tendered him, bought a good farm with the money and erected thereon a monument to the old mare which had raised the colt. The other man refused the \$15,000 offered him, then his colt went wrong and was never worth much to anybody. It is usually wiser for a poor man to take a high price for an animal than to refuse it. Better take the cash and let the buyer take the risk, then try to breed another good one.

SOMEWHAT BETTER

THERE are a few things aside from the tariff which promise some improvement in the woolen textile industry, the market for our wools. Manufacturers are cooperating as never before to eradicate abuses or unsound trade practices which have proved so costly in the past. They are cooperating also in promoting the use of wool fabrics, not merely as in the past but in new ways and products. The manufacturers have learned, from a succession of unprofitable years, some things that will be helpful in the future. In all this progress the wool grower has a certain interest, for he can't find a good market with a depressed textile industry and closed or busting mills.

TWO GENTLE ONES

LAST week J. Frank Radabaugh, assistant farmer at the Methodist Children's Home near Mechanicsburg, Pa., was so badly gored by a bull that he died within an hour. Mr. Radabaugh was leading the bull to water

PENNSYLVANIA FARMER

when it attacked him. The account which comes to us says: "Attendants at the Home cannot explain the bull's action, as it never before caused trouble."

Charles Ludwig, a 65-year-old farmer of Clinton county, Mich., was leading a bull to water when the animal, which was considered gentle, turned on him, breaking several ribs, the breast bone and puncturing one lung. Mr. Ludwig is reported in serious condition.

The gentle bull, the unexpected attack, the death of the victim, all these are familiar to our readers for whose protection we have recorded about 200 cases. There is no way to explain any bull's sudden attack, but no explanation should be necessary after so much evidence that every bull is always an uncertainty, always a potential murderer.

E. P. SNYDER

ONE by one our old friends fall before the scythe of Time. Last week E. P. Snyder, for many years a valued contributor to these pages, died at the ripe age of eighty-nine. Mr. Snyder was a soldier of the Civil War, twice captured by the enemy and once severely wounded. As soon as he recovered from his wound and his experience in Andersonville prison he became a school teacher. Out of his meager salary he saved enough to make a small payment on a farm, and he was a farmer the rest of his active life. His success made him welcome as an institute lecturer and as a writer for the press and he was highly useful and helpful in both. Mr. and Mrs. Snyder reared six children and gave them all university education; but better than that they made every one of them an asset to the country, honorable and useful men and women. And again we ask: How can we despair of agriculture when it yields such men?

NO NEED FOR BOOMING

IN his weekly letter Mr. W. F. Jensen, Secretary of the Association of Creamery Butter Manufacturers, says: "The present situation is the natural outcome of the great stimulus that has been given to dairy production for quite a long time by business men's organizations, chambers of commerce, state and federal officials and others. The industry should now be given a rest until the public can absorb and consume the production." Among the "others" mentioned are banks, railroads and service clubs, all promoting the dairy industry in various ways.

For years we have protested that this program of expansion was unsound and predicted its inevitable end. But the depression was much longer in coming than we expected, due largely to the reduction in number of cows by the campaign to eradicate tuberculosis and to the improvement in the beef industry. Experience has proved that no booming of any line of agricultural production is necessary in this country. The natural expansion following profitable production will be sufficient in any case.

AN EARLY WARNING

THE Federal Farm Board makes a clear statement of its position in regard to cotton acreage, telling producers that it cannot protect them if they "deliberately overplant" and warning them that what it will do with this year's crop depends on what they do at planting time. Since planters know that the Board has authority to deal with surpluses, and expect that it will deal with them by buying and holding if necessary, will the Board's words of warning have the desired effect of reducing acreage? Will cotton planters be governed by the Board's present expression or by what they think will be its future acts? This year's cotton acreage should give us some idea of the ability of a powerful official agency to regulate crop areas by propaganda.

Thus far all such appeals and warnings have been disregarded, but none has been issued heretofore by such a body as the Federal Farm Board.

FOR ORDERLY MARKETEERS

THE Food Research Institute of Stanford University says: The statement is frequently made that wheat prices are usually depressed much more than they should be in the period of heavy farm marketing just after harvest. This view is widely accepted and has given rise to agricultural discontent, to criticism of wheat dealers and of the wheat marketing system and to much of the expectation of substantial gains from large-scale cooperative marketing, or from governmental price stabilization. A recent investigation by the Food Research Institute of Stanford University, California, suggests that this view is quite unfounded. During the 15 pre-war and seven post-war years covered by the investigation, the post-harvest depression of wheat prices in the United States was insufficient to yield gains from storage adequate to cover the storage costs of many if not of most wheat farmers. Farmers, with lower costs of storage than most dealers, could have profited by holding wheat for sale in the spring months only by wise selection of the years in which to hold. It is admitted that much wheat must sometimes be stored by dealers in terminal markets and they should not be called upon to store the wheat at a loss, the post-harvest depression during the years cannot be regarded as excessive.

That is a very conservative statement, about ninety-nine out of every hundred persons believe that wheat prices are greatly depressed while farmers are selling and greatly enhanced afterward. The records show that the case is as stated by the Institute and the present system of marketing is responsible for it. Yet we are told by those who have never studied nor understood the problem that this system, evolved for the purpose of avoiding waste, cost and risk, is a wasteful system and should be supplanted by some other that will insure "orderly marketing." We venture to predict that the present system will not be replaced by another very soon. Also that any new methods in marketing wheat will utilize the current system in Canada rather than abolish it as in the dreams of the orderly marketeers. A system which business, that great seeker and finder of economies, has evolved from many years' experience is not likely to be submerged by a theory based on assumption.

A PENNSYLVANIA PROBLEM

ONE of the problems to be discussed at the many state organizations which meet at Harrisburg next week is the future of the annual Farm Products Show. The problem is stated fully and fairly on the page of this issue, so we need not go into details here. We wish to suggest, however, that with proper patience and diligence it may be possible to have two great agricultural events in Pennsylvania instead of one. On the success of the mid-winter Farm Products Show it may be possible to build an autumn livestock and fat stock show that adequately represent the great animal industry of Pennsylvania and of other eastern territory. And this without sacrificing any of the commercial or popular good will that has been developed for the Farm Products Show. We speak of this as a possibility, but it may not be so remote as the proponents of an immediate shift to an autumn show suppose. Space is going to be inadequate for two great shows in one, though it is adequate for either of them. And we might better resolve to develop both separately with ample facilities for each than to attempt both at one time with insufficient facilities for either. At least a trial of the policy of development, without special state aid, is better than jumping to the conclusion that the mid-winter show should be abandoned for the autumn event. We hope that those who are earnestly striving to solve the problem will come to some such conclusion.

DO New Jersey farmers need the aid of the Federal Farm Board, do they cooperate with the Board, and in what way? In order to get some answer to these questions and in response to a request from the Federal Farm Board, a marketing conference was called at the New Jersey Agricultural College and Experiment Station to consider with other agencies in the state plans and policies for cooperating with the Farm Board.

All of the present work of the State Department of Agriculture and the college pertaining to the marketing of New Jersey's farm products was viewed during the morning session of the conference on January third. The afternoon was given over to a discussion of the marketing problems which confront the farmers in the state at the present time.

Congressman Fort, in speaking of the Agricultural Marketing Act as it applies to New Jersey, said that while the industry has organized during recent years so that there is a coordination of production, agriculture is not kept pace. Industrial products are standardized, widely advertised and sold through organized distribution. Farmers in the West and South have more nearly met these requirements than farmers in the East and have organized into cooperatives, standardized their products and advertised them.

"There is danger of New Jersey losing its market to the West and South," said Congressman Fort. That New Jersey products should be advertised and recognized on the markets as fresher products in order to compete with the influx of Western and Southern produce, was suggested.

Here arises a question: Are the products of New Jersey quality products? Fresh produce and nearly all New Jersey products are of high quality.

New Jersey farmers are often blinded by the illusion that they produce quality when they do not. With every high quality package sold there is another on that same market from the same farm or adjoining farm containing small and wormy apples, sweet corn nubbins, rusty beans, etc.

Nearly Market Complications

Markets nearby to New Jersey add complications to the problem of standardization and advertising of their products. This fall when Mr. — was selling cull apples on the Philadelphia market for

as much as he gets in normal years for first grade apples, it would have been difficult to convince him that these could profitably be kept off the market. The cities always have buyers for ungraded and cull farm products and there are always nearby farmers ready to cater to these markets.

Standardization of products from New Jersey farms has been questioned, but is there any other solution by which these farmers can meet the competition from the carefully graded and widely advertised products from the West?

Dr. Frank App, a member of the New Jersey Farm Relief Committee, mentioned some problems acute to New Jersey agriculture at the present time. Among these were the needs for readjustment of freight rates to allow just competition between production sections, and reforestation of marginal farm land. He criticized market reports as not speaking the language of the producer so that he could intelligently use them, and suggested that more information be made available to what competitors in other sections are doing.

These New Jersey marketing problems require careful study and analysis, but as Senator David Agans pointed out, if this research is carried on long without definite action forthcoming the present problems may be replaced by others.

It has been said that the favorite sport of the American people is appointing committees and passing resolutions. Too often we expect to lift our shoulders and immediately solve that particular problem by passing a resolution and placing it in the hands of a committee. No body, no committee or resolution can solve the marketing problem in New Jersey without the cooperation of each individual farmer in the state.

New Jersey Farm Comment

By G. W. HARRIS

NEW JERSEY MASTER FARMERS

The four Master Farmers of New Jersey for the year 1929 received their Master Farmer Medals at the annual dinner of the Federation of County Boards of Agriculture in Trenton on Wednesday evening of Farm Week. The part of the dinner program devoted to the presentation ceremony was conducted jointly by the American Agriculturist and the Pennsylvania Farmer, donors of the Awards and joint sponsors of the Master Farmer movement in New Jersey.

New Jersey's Master Farmers for 1929 are:
James C. Ewart, Middlesex county.
Charles Fitting, Atlantic county.
Franklin G. Rue, Monmouth county.
Alfred F. Sloan, Salem county.

After preliminary work was done last summer and fall, the final selection of the Master Farmers was made by an independent board of judges consisting of: Dr. J. G. Lipman, Dean of the New Jersey State College of Agriculture and Director of the Experiment Station; William B. Duryee, Secretary of the New Jersey State Department of Agriculture; Harry E. Taylor, Secretary of the New Jersey Federation of County Boards of Agriculture.

Further information about New Jersey's Master Farmers, including biographical sketches, will appear in next week's issue.

MARYLAND farmers and their wives, nearly 500 of them, met in Baltimore last week for the annual meetings of the Maryland Agricultural Society, the Maryland Farm Bureau Federation and affiliated associations. They made their headquarters at the Lord Baltimore Hotel where the fruit and vegetable growers, livestock men, poultrymen, dairymen, beekeepers, tobacco growers and farm women discussed their various individual problems.

At a joint meeting with the Farm Bureau C. B. Denman, a member of the Federal Farm Board, outlined the object and functions of the Board as applied to agriculture in Maryland and other states. Governor Albert C. Ritchie addressed the group on Thursday evening at their annual banquet, an event which was the climax of the four-day meetings.

J. S. and E. T. CULLEN of Cecil county, Maryland, were awarded the silver trophy and \$125 in gold for the best litter in the Maryland 150-day cup, which is awarded each year by the Maryland Agricultural Society and Maryland Farm Bureau Federation, was presented at the annual banquet of the Maryland Livestock Association held at the Claremont Hotel, Union Stock Yards, in Baltimore, on Wednesday evening.

There were 13 pure-bred Poland-China pigs in the winning litter which at the end of 150 days weighed 2,140 pounds. Mr. Cullen figures his profit

from this litter at \$101.39. He attributes the championship to ideal farrowing weather, good breeding, good pasture, and good feed and plenty of clean water.

Second prize winner in the contest was Ralph T. Wilson of Cecil county with a litter of 10 Poland-China pigs weighing 1,873 pounds at the end of the 150-day period. E. E. Remsburg of Frederick county placed third with his litter weighing 1,789 pounds.

THE practice of dumping dead poultry along the roadside was brought to the attention of the Hunterdon County Board of Agriculture last week. It was reported that a year ago one farmer lost most of his flock through an outbreak of cholera which was caused by an unknown party dumping a sack containing dead birds, evidently affected with cholera, on his property.

Edward Nief, representing the Hunterdon County Egg Laying Contest Association, reported that someone had just recently dumped some dead birds along the roadside near his farm.

Poultry dealers and others who use this method of getting rid of dead birds should not be subject to any leniency of the law.

A TOTAL of 186 records have been completed in the 10-month and yearly divisions of the advanced register of the Holstein-Friesian Association for New Jersey, reports W. R. Robbers, superintendent of advanced registry, New Jersey Agricultural Experiment Station.

In presenting figures for the entire county, Mr. Robbers reported an average of 15,712.5 pounds of milk, 515.5 pounds of butterfat, and 3.25 per cent fat.

A total of 67 New Jersey-owned animals made advanced registry records in the 10-month division averaging 13,774 pounds of milk, 459.67 pounds of butterfat, and 3.34 per cent fat.

In presenting figures for the entire county, Mr. Robbers reports that 31,392 advanced registry records have been completed in the 10-month and yearly divisions.

Of this number 23,639 were yearly records averaging 16,703.6 pounds of milk, 566.8 pounds of butterfat, and 3.39 per cent fat in 347 days. In the 10-month division 7,753 tests averaged 14,139.4 pounds of milk, 476.4 pounds of butterfat, and 3.37 per cent fat in 298 days.

"These figures," states Mr. Robbers, "are so far above those of the average cows of the country, and even beyond those of the dairy improvement association herds, that the intelligent dairymen will continue to recognize the wisdom of buying their foundation stock, particularly the bulls, from such advanced registry herds."

THE tree is equal to Carman or Belle in vigor, and the fruit is larger and of a more attractive color than either Cumberland or Carman. The fruit hangs to the tree well, even after it is ripe, and the quality is excellent. It is expected that this seedling will take the place of Carman in the New Jersey planting of early white-fleshed, commercial varieties.

FOUR youthful poultry enthusiasts will represent New Jersey in the National 4-H Club Poultry Judging Contest, scheduled for January 18 as a part of the Madison Square Garden Poultry Show, New York.

Members of the poultry judging team are Robert Lawther of Vineland, captain; James Pettit of Salem; William Bappert of Sicklerville; and Walter Kirjlin of Vineland, alternate.



TOO GOOD TO BE TRUE

Pasture Improvement Tests

By J. B. ABBOTT

DURING the past season a group of agronomists associated with the fertilizer industry have carried on a number of pasture top-dressing tests in the northeastern states. These tests were undertaken with the idea that probably a shortage of plant food is the limiting factor in the production of pasture land, that applications of fertilizer should be rather liberal in order to overcome the bad effects of a hundred years or more of neglect and that the first problem is to determine the plant food needs. Questions of pasture management, economic adaptation of the several treatments under different conditions, etc., are not covered in any detail and of course require further study.

The results of 103 of these tests scattered over 15 northeastern states and Ontario have been reported and are summarized in the accompanying table. It is an interesting fact that the vast majority of these tests show responses closely parallel to the general average, despite the fact that quite diverse soil types are represented.

Perhaps the most striking feature of these results is the relatively large increase in both dry matter and protein in the case of the last two plots as compared with the plots which received only phosphoric acid or phosphoric acid and lime. One might conclude, from the frequency with which those treatments have been recommended, that pasture soils need little other than phosphoric acid and lime; but these results do not lend much support to that view.

The Three Staves

The failure of phosphoric acid alone to give a really satisfactory response should not be interpreted as meaning that pasture soils do not need phosphoric acid but rather that most of them need something else with it. Of course phosphoric acid alone cannot grow the desired amount of clover if clover growth is limited by shortage of potash, nor can it grow the desired amount of grass if growth of grass is limited by shortage of nitrogen. Presumably—though it was not covered in this set of test plots—neither potash alone nor nitrogen alone would have given any better response, if as good, as phosphoric acid alone. It is the old case of the barrel with three short staves. You simply cannot make it hold water to the top without fixing all three staves.

It is difficult to arrive at any satisfactory estimate of the cost of these treatments, since it is impossible to estimate with any degree of certainty how long they will last. Certainly the mineral part of the fertilizer and the lime will last more than one year—in all probability they will be showing results at the end of five years, though probably there would be a good response from adding more fertilizer inside of that time. I have in mind certain plots on which I applied a similar fertilizer in 1920 which still show a visible difference at the end of the tenth season of grazing, though they obviously need further treatment now.

There is no particular reason to assume that the nitrogen will last very strikingly beyond the first year, since the increased protein yield—329 pounds—seems to account fully for the 50 pounds of nitrogen applied. It doesn't need to last any longer to pay, as far as that is concerned, for it

made enough extra grass growth prior to the first of June to pay for itself in terms of barn feed saved.

I base that statement on thirteen plots which were harvested in late May with an average increased yield on the complete fertilizer plot of nearly 6,000 pounds green weight per acre as compared with the check plot. The plots with mineral treatment alone were not materially better than the check plot on that date.

My guess is that one can arrive at a pretty close approximation of the real annual cost of the several treatments used by spreading the lime cost over a five-year period, the phosphoric and potash cost over a three-year period and charging all of

5-8-7 potato fertilizer would be near enough for all practical purposes and it is easy to obtain. I have used it myself with good results.

Now just a word or two as to the economic adaptation of these treatments. In the case of every treatment, even the cheapest, the cost per pound of dry matter produced exceeded the cost from unfertilized pasture; but—and here is the point—in the case of every treatment, even the most expensive, the cost per pound of dry matter produced was less than half the cost in silage and green feed and less than one-fourth the cost in concentrates.

This seems to lead to two conclusions: first, that it is good business to fertilize the pasture insofar as fertilized pasture can be made to reduce barn feeding; and second, that one may use even the most expensive of these treatments, if it seems to be required, and still keep his feed cost way below that of barn feeding.

The great, big, inescapable fact is that a cow will harvest a crop and take it up to the barn a lot cheaper than hired help will do it. I used to think—and pretty recently, too—that it was the mark of a good farmer to grow hay and silage enough so he could barn-feed his cows as soon as the pasture got a little short, stable them very early in the fall and keep them stabled until very late before turning out in the spring. It isn't that sort of a farmer who is working his back harder than he is his head. It is the mark of a good dairy farmer so far as keeping feed costs down is concerned, to have pasture so good as to require but little supplemental barn feeding from early turning-out time until the time of severe frosts in the fall.

A "Lick" of Oats

WE don't like to have oats scarce around our place. We like to have oats to feed and oats to "throw away." In younger days every field

on the farm was taken diligently into account and every one was given just pretty near an even chance. But fields are like the people who sit the pews at church—their contributions vary widely when the "hat" is passed.

By degrees we came to the conclusion—and I admit that this conclusion should have been years earlier—we came to the conclusion that now and then it paid to give a none-too-good field the proverbial "lick and a promise." We have a field of thirty acres that we are going to give this lick and promise to this spring. To be sure, we plan a fair acreage of oats to be seeded carefully and fertilized adequately—but not that field. Too much work about the best time to sow oats on top of the ground with a fiddle seeder and leave it to nature tillage. Right around that date we shall have a peck of well-cleaned oats for each acre of the none-too-good field. Soon thereafter we shall turn over it again with alsike clover seed, timothy and a dash of red clover.

A good deal more than half of the time we have to harvest a crop of oats or other kind of a crop but when it doesn't look like that we graze it and clip it as it comes into head and let it lie. Year in and year out we find it pays us to give the fertile fields this lick of oats, some clover seed and promise of the plow in a couple of years. H. D.



Unfertilized plot photographed June 8, 1929. Yield of two cuttings, green weight, 8,167 pounds.

the nitrogen against the current season; but I want it clearly understood that it is a guess rather than an experimentally proved fact and that I have no evidence at all in support of that method of application as opposed to annual fertilization. In fact, I am rather disposed to favor annual treatment with something like the straight grass top-dresser fertilizers after an initial heavy application of fertilizer richer in minerals has been made.

I do believe, however, in the light of the striking clover response we obtained from a fertilizer rich in both phosphoric acid and potash, that it is good business to start the pasture fertilization program with something of about the 5-10-10 ratio. A

Average result of First Year of 103 Top-Dressing Tests on Permanent Pasture in 15 Northeastern States and Ontario

	Lbs. dry matter per acre	% protein	crude protein per acre	Total Increase	Total Incr.
Untreated Check	1051	16.5	173		
0-10-0 1,000 lbs.	1392	341	16.9	235	62
Lime 1 ton	1518	497	17.4	269	96
0-10-10 1,000 lbs.	1850	799	19.1	353	190
Lime 1 ton	2501	1150	20.1	692	329
5-10-10 1,000 lbs.					

*Equivalent to 625 lbs. of 16 per cent superphosphate.



This plot was top-dressed on April 30, 1929, with a 6-8-6 fertilizer at the rate of 400 pounds per acre. The photograph was taken June 8, 1929. Yield two cuttings, green weight, 14,823 pounds.



This plot, which received 800 pounds per acre of a 6-8-6 fertilizer, yielded 19,058 pounds, green weight, at two cuttings.



This livable pergola adorns a blank wall space. It cost about \$15, the owner building it himself.

NINETY-SEVEN and six-tenth miles—accurately automobile registered. And every place along that prominent highway, leading by sunny fields and wooded dales, that I saw trellises and lattice nooks I realized how they can transform homes by lending additional charm to already attractiveness.

Cleverly placed about the porch, or doorway, or window, or on the lawn—some day I'm going to see a pretty latticed summer house, a pergola even, in every farm garden. I hope—trellis and lattice adds marked interest to the very character of the farm. To me it produces such a gay, light, livable appearance without vainness, that before I have met them I just know, somehow, that the folks living there are wide-awake and have fine taste.

Trellis and lattice work has a still further practical advantage. It is inexpensive, considering its contributing value. The pergola where the young girl stands, for instance, cost only about fifteen dollars—some few dozen gallons of gas.

Seclusion and Shaded Light

And so it isn't strange that this particular type of style-ing is being favored on real every-day farmers' farms. While we are so engrossed "playing up" with improved plantings and buildings, modern machinery indoors and out, and working up color otherwise in and outdoors we aren't losing sight entirely of this improvement.

Fortunately we in farm homes in the main do not have to worry or hesitate about adapting this or that type of trellis or lattice work to our houses for fear it would be inappropriate—rather few of us live in Spanish or Georgian or Italian type houses, that must be specifically played up to.

However, choosing is a matter for thought, withal, since there are so many lovely trellis and lattice work creations, structures offering themselves, modestly as to finance, with a real flair for our homes. Some are square-headed. Some are arched. Yet others square-headed with arched openings, and arched heads with the lattice filling the space being sometimes only one-quarter by

seven-eighths inches thick, and in any number of patterns with pleasing scale variation.

Visualize brick-house homes in the country—they are all about us. What relief their dense weighty appearance is given by erecting trellises of varied shapes with varied openings—the whole in a light, dainty mode. I know an old brick farm house far out in the fields that was built by a Colonial settler as an exact copy of a Southern manor house he had fallen in love with. The quaint lovely lattice-work about the wide balcony is at once arresting and fancy while practical and guarding. It reminds me of a species of exquisite needlework known as ladder stitch.

Speaking of lattice work for porches, on a projecting

New Clothes for Home Grounds

By G. SHOCKEY

back porch a farm wife when working desires seclusion and softened light yet with plenty of circulating air for herself during those hours, and for the children playing there. So the lattice is more closely set upon somewhat sturdy frame and of somewhat thicker "stock." Again, porches afford means for trellis expression. Slats may run diagonally, or vertically and crossed horizontally. These provide admirable supports for vines and tall growing flowers, while secluding shadingly, comfortably as well. These should be so constructed and erected as to permit of laying aside or temporary removal for emergencies such as painting, repairing, etc.

What could possibly make for a more decorative "Mason-and-Dixon line," so to speak, between lawn and vegetable garden on farms than a neat, substantial lattice fence? It shouldn't cost prohibitively; at any rate, results will pay for the latticework. I prophesy, especially if strong posts and thicker stock—durable material—be employed in the making.

And summer houses about the farm home. They serve the farmer and his family as refreshing relief from summer suns and soothing protection on dewy evenings. They should be built more simply, quite likely, than those designed for municipal



A porch trellis provides admirable support for vines and tall-growing flowers.

summer-house lovers, since this sort harmonizes all the better with our simple yet imposing atmosphere of the fascinating country in a striking "quality" manner. In truth, for the farm, "crazy" raked-wood affairs are out of time with our unaffected quiet nature surroundings. A frame for a farm summer-house might well enough be of trellis, which requires less latticing material,



A welcome retreat from the hot sun and an attractive addition to the appearance of home grounds.

letting vines add the criss-crossing touch in living green.

When the farmer, or a member of his family, does the building and finishing of any sort of trellis or lattice work, he salvages the contents of his purse heartily. And the size and choice of material for any such piece of beautifying improvement of farm lands reasonably governs cost.

Summarily, trellis and lattice work well built on the farm makes its mark in its own quaint, trim, light way so distinctively distinguishing.

Dealing with a Woman

QUITE unexpectedly through the death of a relative I came into possession of a small run-down farm last summer. Like most farms managed by elderly, retired, absent farmers the whole place had a seedy appearance. The tenant decided that if he had to deal with a woman he would have things his own way, so a few weeks after he heard the news he came in with some rules and conditions to lay down.

In brief it was to the effect that the household goods stored in two rooms must be removed and the rooms papered and cleaned up; two strings of tile to be laid, costing about one hundred and fifty dollars, and the rent dropped fifty dollars from what he had been paying.

"I'm not sure that I'm going to stay," he said, "but if I do I'll not pay what I've been doing. The buildings are gone to rack and ruin, the trees in the orchard should all be cut down, as they are fit for nothing, and there are no fences to speak of."

After he had finished his lengthy tale of woe I told him that I was by no means certain either that he would stay. It looked like a good place for me to live on myself. It is on a good highway, only two miles from the county seat, a few rods from school and the soil is productive. He argued that it would be foolish to do so and no money could be made, but I said we were not out to make money but to save money. The farm house has a furnace, both kinds of water in the house and is substantial.

It was interesting to watch his change of countenance as he begged to stay and offered more than his present rent. He said the apples alone often paid half the rent, and other things made it so valuable that he raised the price three times and asked for nothing but the two rooms papered. A garden for us is to be excepted in case we do rent.

It just goes to show that when people are dealing with inexperienced farm owners they try often to take advantage. He announced three times that he had offered his last cent, and then came back to argue that we should not put him off the place. If he does stay it isn't likely that he will try that game again. Farm Woman.



Lattice separates flower and vegetable garden and makes a most fitting background for an artistic lawn.

A Thinking Job

By Fisher Ames

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Synopsis

Toots Pouche, an orphan boy with no job, spends his last dollar to rescue a dog from a fight with a captive wildcat. The boy secures employment at the Broad View Hotel, a likely place run by a southern gentleman apparently more for love than for money, since it is evidently not a paying proposition. The Colonel dies suddenly after arranging for Toots to have his library. The boy and his dog are now part of the crew on Jack Rose's craft the Stingaree.

As guests of an explorer on an ancient craft, Toots and Rose are shipwrecked but manage to get back to the Stingaree. Toots has just learned that the boat is in her home port and he must look for another job.

with A, and you can show me where they are. Alcohol."

Tigert pointed out the various heaps where this might be found. Toots collected the bottles and carried them to the lowest shelf on the right of the door, where he arranged them in a file against the wall like spies about to be executed. Tigert watched him for a moment silently. "Look here!" he said, "we can't waste time this way."

"It'll save time in the end," said Toots. "That's what we do on board a boat, keep everything in its place so we can grab it with our eyes shut if we have to. When you've once got things right it's easy to keep 'em that way. Apples, dried."

Tigert pointed mechanically to a lot of small gaudy boxes mixed up with rope, rubbers and blacking brushes in one of the corners. Toots dealt with the dried apples with deftness, quickness and confidence, and when he printed a robust

The Cheerful Plowman



THE WHEELBARROW FOREVER!

THE high test gas with chug and flame put a Dabbin in the shade and showed him how a winning game is very swiftly played. A buzzing bunch of metal teeth has chased the flail from sight, while good old-fashioned sod and heath turned golf links over night. The roost where turkeys used to perch beside the apple tree is out of sight and in the lurch—all modern coops for me. The tractor has replaced the mule on all Missouri farms, and high wheeled cycles once the rule have lost all show of charms.

But new things come and old things go. Ah, let them as they will. This old wheelbarrow, strong and slow, it carries with me still. There are a thousand little chores about this place of mine, like moving bags and cellar doors, old rocks, and roots, and twine, where no machine however new, however up to snuff, however smart in form and hue, pink, lavender, or buff, can take the place of this old thing, this old wheelbarrow here; among old traps it is the king. I surely hold it dear!

It doesn't need a beaten path, 'twill squirm through gates and nooks, 'twill twist around a pile of lath and glibly cross a brook. It is the handiest device our good forefathers made, it operates upon the ice and in the sun and shade. A squirt of oil on New Year's Day, a squirt on June fifteen, a coat of paint in March, we'll say, and it runs smooth and clean.

Yes, buggies went the way of dew, and buses lost their caste, the sulky plow and shark-toed shoe are relics of the past, but ages come and say "Hello!" and ages say, "Farewell!" removing knickerknacks row on row from upland, glade, and dell, yet this old one-wheeled, two-benched rig retains its station here; it still will be a-going big on Judgment Day, I fear!

J. E. T.

A on a card and tacked it to the lowest shelf the Captain was visibly impressed.

They continued the work during intervals between customers. By noon such a change had been made in the general aspect of the store that Tigert did not want to stop. He suggested that they lunch there, and with unwonted liberality, laid out a box of sardines and a pile of crackers on the counter.

"If you spread some peanut butter on those they'll go good," he advised. "Wish we had some cheese, but that's all I can't bring myself to keep. I'd be a-bilin' of it the whole time, same's a mouse."

"Afraid of indigestion?" asked Toots, through a mouthful of cracker and peanut butter.

"Taint my stomach I'm afraid of, it's the profits," retorted the Captain.

If Rose was "close" Tigert was closer; but he was a hard worker and when he proposed that they put in a little overtime, Toots, pleased at the enthusiasm his plan had roused, consented. Later on they had supper, which bore a striking resemblance to the mid-day meal. Afterwards Tigert lighted several big lamps with nickel-plated reflectors. Toots was really too interested to feel tired. The kind of life he had led had given him plenty of endurance and his young muscles were like a cat's, not bulky, but of a whipcord quality. Tigert was much the more weary of the two when they quit.

"You'd better cut round to Daddy Simons before it gets later, if that's where you're goin' to stay," Toots got his duffle bag and went to the door. He hesitated a moment and then said: "I've got some money I'd like to put in a safe place. Could you advise me where to put it, sir?"

"Why not leave it in the safe here? How much you got?"

"Two hundred dollars."

TIGERT started and glanced at Toots curiously. A sudden sharpness in his small gray eyes. "You leave it here," he said. "That's too much to tote round. It'll be all right with me."

When he had deposited the roll of bills in the safe Toots wished Tigert goodnight and left the store. The feeling of melancholy that had been hanging over him all day, now descended unchecked and enveloped him. He missed the Stingaree's luxurious cabin and the free adventurous life aboard her. He missed Zach and big vain, companionable Rose. For the moment, rolling stone as he had admitted himself to be, he was sick changing from one thing to another. Sick of fighting for the meager living that it seemed was not his natural right. Everybody begrudged it to him and expected him to be grateful for the hard work they permitted him to do. He was born into indifference. His sorrows, pleasures, hopes, were less regarded than the dust in the road.

Toots was not really morbid and the mood soon passed. When he came to reflect upon it the prospect at the store was not so bad in one way. Tigert didn't like, but the process of creating order out of chaos appealed to him. It gave him a definite problem to tackle and Toots rather fancied problems.

The warm welcome that Daddy Simons and Nancy gave him helped to dispel any lingering sense of dissatisfaction, for the time at least. They were both congenial. Daddy was young for his age—he had married late in life—while Nancy was old for hers. Father and daughter were great pals. She was the best housekeeper imaginable and one of the daintiest of cooks. She had set aside a late supper for Toots, whose appetite had been merely whetted by the snack at Tigert's, and while he discussed the probable developments of his work at the store, Nancy was sure he would eventually become a partner.

"Not with Tigert," laughed Toots. "We don't cotton to each other a mite. What's wrong about him anyway, Daddy?"

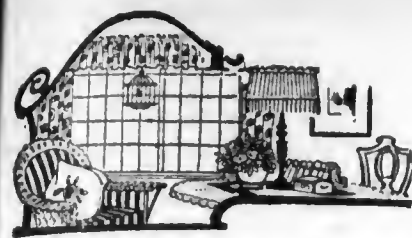
"Nuthin' great, I reckon," said Daddy without much conviction in his tone. "He's a good store-keeper. Holds Carbury's trade an' makes money that is. He ain't a native son an' what he will before he come yere I dunno."

"I declare!" exclaimed Nancy with a pout. "Here you get a nice job right at home and the first thing you do is to pick holes in it. I s'pose you'll be running off again directly. What kind of a job do you want, Toots Pouche?"

Toots' eyes twinkled. "You know that book your father gave me?" he retorted. "About Darwin an' the Beagle. Well, now, that's the kind of a job I like, if you want to know. That's what I call a thinking job."

Daddy looked concerned, as if he regretted having presented the book to a young friend so visionary. "Darwin was a scientist, he wasn't a worker," he said. "Follerin' a hobby ain't the same as earnin' a livin'."

(To be continued.)



She Can Can

By GRACE VIALI GRAY

MRS. JOHN HVASS, living on a farm in Kennan, Wisconsin, knows how to can. She has proved this by coming out of the National Canning Contest as Grand Champion of Canners. This title was bestowed upon her because her jar of canned peas received the Grand Champion prize of \$1,250.

It was a great honor to receive this recognition, as 25,000 jars were scored in the contest. No small number of jars, this. You may think it strange that Mrs. Hvass won so large a premium on nothing but a jar of peas instead of a fancy pack jar. This just goes to show that the simplest thing, if done right, is worthy of recognition and high award. The judges were not looking for unusual things, nor were they looking for "packs" that required an undue amount of time on the part of the busy homemaker. They were looking for a perfectly-canned product available to any homemaker. It was perfection they wanted, not unusualness. And in Mrs. Hvass' jar of peas they found perfection.

And when the jar was traced to its sender, a modest woman, living in a simple home on a farm was found. Her kitchen is like thousands of other farm kitchens—she canned her champion jar of peas under the same conditions as you might, and that is why she is so human and of such great interest to all of us.

Pressure Cooker Again

There was absolutely no doubt but that the peas canned by Mrs. Hvass far surpassed all the other entries of the contest. They were as near like the natural fresh product as they could possibly be. On inquiry it was found that she had canned them in her pressure cooker. This may have been the reason why they were free from cloudiness, perfect in shape and true as to color and flavor.

At any rate, this is what Mrs. Hvass herself, has to say:

"I decided to can peas because I had a lot of them on hand. In canning my prize jar I used my pressure cooker, and all credit for winning the contest should go to this cooker. I have used it for my canning and cooking for a number of years. I know it has been the best thing that I ever brought into my kitchen."

Editor's note:—We have been tremendously interested in the splendid prizes won by many of our readers, and I am sure you will be, too, so here they are.

West Virginia

First fourth prize, \$50: Mrs. A. W. Henton, Minnehaha Springs, W. Va.—Peas.
Vegetables, \$25: Mrs. H. G. Sturmo, 406 Elm St., Harman, W. Va.—Carrots.
Meat, \$10: Mrs. E. P. Powell, Salem, W. Va.—Spring Chicken.
Fruit: Mrs. Powell Reynolds, Point Pleasant, W. Va.—Chickens.
Mrs. Cunn. McElwee, Minnehaha Springs, W. Va.—Peas.
Vegetables, \$5: Miss Powell Reynolds, Point Pleasant, W. Va.—Beans.
Meat: Francis Sutphin, Oak Hill, W. Va.—Chicken.

Pennsylvania

Vegetables, \$5: Mrs. Caroline Uphoff, Sewickley, Pa.—Pickled Beets.
Fruit: Mrs. H. L. Kimpel, Clarion, Pa.—Pears. Mary Zuber, Spring Mills, Pa.—Peas.

New York

Meat, \$10: Mrs. E. W. Mercer, Schuylers Lake, N. Y.—Boned Chicken Breasts.
Meat, \$5: Mrs. Edward Kellogg, R. 1 Box 6, Cornhusk, N. Y.—Chicken.

New Jersey

Vegetables, \$5: Mrs. Win. Chegwidden, Maple Shade, N. J.—Beets.

Delaware

Meat, Third Prize, \$100: Mrs. Orlean B. Ghatish, Marlinton, Del.—Breast of Chicken.

Maryland

Vegetables, \$10: Miss Margaret Wilson, Mardela

The Farm Home



Only a Cold

By HEPSY NEFF

Treat Yourself to a Little Child

LAST year a childless couple in a comfortable country home stopped investigating and worrying and arguing about adopting children and treated themselves to a little, big eyed, homeless boy. Acting on the advice of friends they had his picture taken the day he came from the agency that placed him in their home. They listened to some good advice from the kindly man who brought the orphan, and then proceeded to be wise, gentle, considerate and loving parents. After a

It may seem strange to some of us that Arctic explorers count among the perils of the Far North the colds which they catch from white people at the trading posts or other places of fixed residence where whites live in heated houses. We have learned to expect the catching of smallpox or measles from being with persons who have these diseases and we shall be the gainer when we call a cold a contagious disease and keep away from it.

Tent dwellers have few of the diseases common to our warm rooms, first because disease germs cannot live but a few hours under direct sunshine

and second because the human body has its own defenses in the white blood corpuscles, the policemen of the blood as they have been called. A special force of these policemen are always, when we are in health, stationed at the gateway of the throat, ready to meet all invaders, and only a chill can drive them from their post.

Of course city people and all who mingle much with crowds constantly carry a variety of disease germs in the mouth and throat. If our resistance is strong we are protected against all invaders. The white blood corpuscles destroy them. Man has learned that he can keep the same even body temperatures whether in the Tropics or the Arctic; whether in Alaska or Panama. Everything depends on his clothing. Today the sanitarians of our northern states are filled to overflowing and have long waiting lists, mostly young women, suffering from tuberculosis. Physicians say this terrible condition is due to lowering the resistance of the body by too scanty clothing. Many of us know of such cases where help was sought too late. The remedy is preventive: keeping an even body temperature from head to feet. The cure is the early help of the best physician within reach.

The Kitchen Sink

PROPER care of the sink means a more efficient kitchen and pleasanter working conditions for the housewife, according to the New York state college of home economics at Cornell University.

To prevent clogging by grease, and to keep from needless labor in cleaning the sink, scrape all dishes and cooking utensils before putting them into the dishpan and wipe out greasy ones with soft paper. For this purpose, paper napkins are especially good, but paper towels and even newspapers may be used. If this plan is faithfully followed there will be no need of a sink strainer because the dish water will be free from crumbs and other solids and will not leave a greasy deposit around the sides of the sink.

Boiling water occasionally poured down the drain will help to keep it clear of any grease or other material which may have lodged there. If it does become stopped-up, however, use one of the commercial preparations on the market for the purpose, or dissolve one-fourth pound of copperas in two quarts of boiling water or one pound of lye in six quarts of boiling water and pour this down the drain. Then flush it with clear hot water.

Another method is to pour a gallon of boiling water to warm the pipe and then pour in one cupful of kerosene to form an emulsion with the grease in the pipe. After five or ten minutes flush the pipe with another gallon of boiling water. Never use washing soda or sal soda to clear a grease-clogged drain because it combines with the grease to form hard soap which takes a long time and many gallons of hot water to dissolve.

A piece of orange rind kept in the canister gives a delicious flavor to tea.

A few sound apples placed in the cake box will help keep the fruit cake moist.



Mrs. Hvass is careful to completely seal the jars after they are taken from the pressure cooker. Note the uniformity of the peas and the absence of cloudiness from the jars.



Cold in Head, Chest or Throat?

RUB Musterole well into your chest and throat—almost instantly you feel easier. Repeat the Musterole-rub once an hour for five hours... what a glorious relief!

Those good old-fashioned cold remedies—oil of mustard, menthol, camphor—are mixed with other valuable ingredients in Musterole.

It penetrates and stimulates blood circulation and helps to draw out infection and pain. Used by millions for 20 years. Recommended by many doctors and nurses. Keep Musterole handy—jars, tubes.

To Mothers—Musterole is also made in milder form for babies and small children. Ask for Children's Musterole.



Best Remedy for Cough Is Easily Mixed at Home

You'll never know how quickly a stubborn cough or chest cold can be conquered, until you try this famous recipe. It is used in millions of homes, because it gives more prompt, positive relief than anything else. It's no trouble at all to mix and costs but a trifle.

Into a pint bottle, pour 2½ ounces of Pinex; then add plain granulated sugar syrup or strained honey to make a full pint. This saves two-thirds of the money usually spent for cough medicine, and gives you a purer, better remedy. It never spoils, and tastes good—children like it.

You can actually feel its penetrating, soothing action on the inflamed throat membranes. It is also absorbed into the blood, where it acts directly on the bronchial tubes. At the same time, it promptly loosens the Kern-Laden sputum. This three-fold action explains why it brings such quick relief even in severe bronchial coughs which follow cold epidemics.

Pinex is a highly concentrated compound of genuine Norway Pine, containing the active agent of creosote, in a refined, palatable form, and known as one of the greatest healing agents for severe coughs, chest colds, and bronchial troubles.

Do not accept a substitute for Pinex. It is guaranteed to give prompt relief or money refunded.

PINEX for Coughs...

GET YOUR ROOFING DIRECT FROM FACTORY... FREIGHT PAID

SAVE MONEY! Get your Roofing direct from the Factory and keep in your own pocket the profits the dealer would get. All kinds and styles. Galvanized Corrugated, Shingles and Asphalt. Freight Paid. Easy to nail on. Write TODAY for Free Samples and lowest prices. FREE SAMPLES.

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Shaving Stick

Contains the medicinal properties of Cuticura. Freely lathering and sensitive. It removes skin blemishes and protects the newly shaven surface from infection.

25c. Everywhere

YARN

COLORFUL WOOL For Boys, \$1.15 lb. Knitting Wool, at 10¢ lb. in 1 lb. balls. H. A. BARTLETT, Manufacturer, Harmony, Box F, Maine



A Dress for Every Occasion

No. 3274.—This pattern shows a swathed bodice with a rather long-waisted. The attached circular skirt is cleverly shaped to keep the hips flat with graceful fullness at smart and slenderizing. Style No. 3274 can be copied exactly for it comes in sizes 16, 18 years, 36, 38, 40, 42, 44 and 46 inches bust measure. Crepe satin in new dark brown shade with the bolero lined with the reverse of crepe is conservative and chic. Size 36 requires 4½ yards of 39-inch material with ¾ yard of 32-inch contrasting.

No. 3257.—The long-waisted bodice is fitted snugly through the hips with deep vest at front with becoming square neckline offering a definite change. The cape in revers and tied at end of V-opening. Style No. 3257 is designed in sizes 16, 18 years, 36, 38, 40 and 42 inches bust measure. Bottle green crepe silk is exceptionally wearable with vest made of self-fabric. Size 36 requires 4½ yards of 39-inch material with ¾ yard of 32-inch contrasting.

No. 3245.—Princess Silhouette. A brown and yellow-beige checked tweed that is outstandingly smart in Princess silhouette. Beautifully modified by long revers collar reaching to waistline. This surplice and one-sided effect of the bodice makes it equally wearable for the larger woman for it minimizes the width through the waist. Designed in sizes 16, 18 years, 36, 38, 40 and 42 inches bust measure. Size 36 requires 4½ yards of 39-inch material with ¾ yard of 32-inch contrasting and 2½ yards of binding.

No. 3247.—The jacket dress in Scotch plaided woolen is unsurpassed for the may be made at a very small outlay. It is sketched in beautiful red tones with deeper tones of plain red woolen used for applied band of collarless jacket which appears again in belt and binding of neckline of dress. The bodice that stimulates a tuck-in that is stitched to the skirt with inverted plaid at center-front is in red jersey in matching shade of background of plaid. Tweed-like cottons, wool crepe, tweed, flannel and linen suitable. Size 8 requires 2 yards of 39-inch material for jacket and skirt, ¾ yard of 35-inch material with ¼ yard of 39-inch lining for waist and ¾ yard of 35-inch dark material for bands, cuffs and belt.

No. 3246.—A most exquisite eggshell crepe satin blouse that boasts of its flattering neckline. The jabot frill is shaped at upper edge so as to lay perfectly flat with a soft rippling cascading fullness at either side. It is caught in under the applied shoulder yokes and finished with over-bow or as a tuck-in. Style No. 3246 comes in sizes 16, 18 years, 36, 38, 40 and 42 inches bust measure. It can be copied with 2 yards of 39-inch material with ¼ yards of binding in the medium size.

No. 3269.—Tailored Frock. The tailored one-piece frock in printed wool crepe lengthened with kilted plaited flounce is a copy of an elder frock of sports character. It has a crisp pique collar and is belted at normal waistline. Inset pockets are placed at either side below the waistline. Style No. 3269 is as comfortable as it is smart and so easy for the little miss of 8, 10, 12 and 14 years to slip into. Size 8 requires 1½ yards of 39-inch material with ¾ yard of 32-inch contrasting.

No. 3237.—Costume Slip. A charming costume slip with a long-waisted fitted bodice, pointed at center-front, has an attached skirt that is fitted through the hips by means of pin tucks. It adapts itself perfectly to the new fitted lengthened silhouette. It has deep comfortable cut out armholes with the important V-outline at both front and back of upper edge of bodice. Style No. 3237 can be had in sizes 16, 18 years, 36, 38, 40 and 42 inches bust measure. Perforations are provided for lace trimming at upper edge and in bodice effect around skirt, or for the use of contrasting color. It is in peach shade crepe de chine with deep shade ecru lace. Size 36 requires 2½ yards of 39-inch material with ¾ yards of 2-inch lace or ¾ yard of 39-inch contrasting bands.

No. 191.—Style No. 191 comes in sizes 10, 12 and 14 years. In the 8 year size, it is made with 1½ yards of 39-inch material with ½ yard of 32-inch contrasting of plain taffeta for ruffles. The thrifty model for little daughter, a pretty dainty sprigged pattern is very effective for general wear. Light blue cotton pique, dark green plain crepe is effective. Wool jersey in Hunter's green used for entire outfit is attractive. Wool challis print is very dainty and quaint in yellowish brown tones with bodice, cuff bands and ruffling of plain challis in harmonizing shade. Sports weight linen in orange-red with white linen, sailor blue pique with white dots with plain blue pique, and French blue silk crepe with white crepe are admirable smart combinations. Size 8 requires 1½ yards of 39-inch material with 1½ yards of 35-inch contrasting with 2½ yards of plaiting.

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No. 159.—Princess Apron. It's alluringly smart in gaily patterned chintz in red tones. Plain binding in the deepest tone of print trims the open round neckline, deep open armholes and attractively shaped pockets. Shirrings at either underseam indicate normal waistline and hold the garment closely to the figure so as to retain its moulded waist and hipline. The skirt starts to widen below the pockets with a delightful circular flaring fullness at hem. It has matching cuffs too. It is so essentially smart, to carry out the semple theme. Style No. 159 comes in small, medium and large size. In the medium size, it is made with 2 yards of 39-inch material with ½ yard of 27-inch contrasting.

No. 3280.—Jacket Suit. Any young miss of 8, 10, 12 and 14 years would appear smart in this fashionable jacket suit. It is sturdy in navy blue wool crepe and practical as well. Printed rayon crepe in dark green tones in combination with yellowish green plain crepe is effective. Wool jersey in Hunter's green used for entire outfit is attractive. Wool challis print is very dainty and quaint in yellowish brown tones with bodice, cuff bands and ruffling of plain challis in harmonizing shade. Sports weight linen in orange-red with white linen, sailor blue pique with white dots with plain blue pique, and French blue silk crepe with white crepe are admirable smart combinations. Size 8 requires 1½ yards of 39-inch material with 1½ yards of 35-inch contrasting with 2½ yards of plaiting.

Write your name and address clearly. State number and size of each pattern desired. Patterns cost 25c. Our Fashion Magazine will help in preparing your wardrobe. Copy only 10c. Embroidery patterns 15c. extra. Address Pattern Department, Pennsylvania Farmer, 7301 Penn. Ave., Pittsburgh, Pa.

Five Minute Cabbage

THE most recent information we have on the occurrence of vitamins in vegetables, indicates that the vitamin C content is highest when the foods that supply this vitamin are used raw or cooked only a very short time. Cabbage is one of the best sources of vitamin C if properly cooked, or, better still, served raw. Those who like the crisp texture and pungent flavor of raw cabbage will find some of these qualities present in cabbage cooked just a few minutes in hot milk. The method of preparing it is described by the Bureau of Home Economics of the U. S. Department of Agriculture.

Three cups milk, one and one-half quarts shredded cabbage, one cup cream or rich milk, three tablespoons melted butter, three tablespoons flour, salt, pepper.

Heat the milk and cook the cabbage in it for two minutes. Add the cup of cream or rich milk, the blended butter and flour, and the seasoned cook rapidly for three or four minutes, and stir constantly. The result is cabbage delicate in flavor and color.

Cooking Wild Rabbit

If your family objects to the wild taste of rabbit, you can easily please their appetites by the following method. Wash and thoroughly clean two rabbits. Cut up and place in pan. Pour over it water to cover in which you have dissolved two level teaspoons soda. In twenty minutes, drain and cover with clear cold water. Drain again, and let stand over night in water slightly salted.

When ready to cook, drain—roll in flour and fry slowly to a rich brown in butter. Serve with brown gravy. Old rabbits may need parboiling first.

Care of House Plants

POTTED plants growing in the house may be kept in a healthy condition during the winter months by careful attention to watering, temperature, ventilation, sunlight and feeding.

The majority of house plants like a moist soil, says W. W. Wiggins, floriculturist at the Ohio Agricultural Experiment Station. Allowing the soil to become extremely dry each time before watering is not desirable. The plants should be given the proper amount of water each day to moisten the soil if needed. An excess of water is also very harmful. A hole for drainage should be provided in the bottom of the container. If the flower pot is placed in a jardiniere or saucer the water that drains from it must not be allowed to stand in the bottom of the container as it will water soak the soil. A temperature at night ranging from 55 to 70 degrees is satisfactory, but where the temperature drops nearly to the freezing point, the plants are severely checked.

Repotting house plants is often neglected. When the plant has filled the pot with a ball of roots it needs to be repotted. A good loam soil with an abundance of humus is satisfactory for most house plants. Feeding at frequent intervals with a liquid manure solution of nitrate of soda at the rate of a tablespoonful to a gallon of water will delay the necessity of repotting for a time.

Gas escaping from the stove is very harmful to some plants and is often the cause of their turning yellow or making poor growth. Good ventilation is as essential to the health of the plants as it is to the human occupants of the house.

During the winter months most plants need all the sunlight it is possible to give them, although the rubber plant, Aspidistra, Sansevieria, some of the ferns, and the like will withstand shade for a long time and still remain healthy and vigorous. A good general rule is to give all of the house plants all the sunlight possible. By turning the pot at frequent intervals the plant does not grow so one-sided.

The Question Box

DAR PENNSYLVANIA FARMER—I have been watching for quilt patterns like our mothers used to make. One I want so badly is the Irish Chain. If you can get it for me, please publish it in your paper.

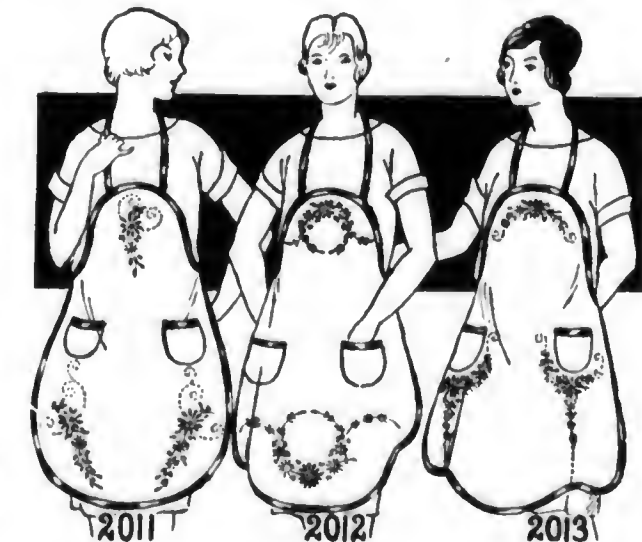
A Reader.

This dear reader would have had a Christmas letter telling her "Yes" with the picture and prices if she had signed her name and written her address.

So here is the picture of the old-time favorite, and we can furnish the pattern immediately upon order. We have ready for distribution any or all of the following: Tree of Paradise, Pacific Queen, Star and Shield, Air Plane, Tulip Wreath, Sail Boat, Floral Wreath, County Fair, Ohio Star, Dutch Wind Mill, Country Wife's Puzzle, Letter Tray, Maple Leaf, Double Cross, Grandmother's Basket

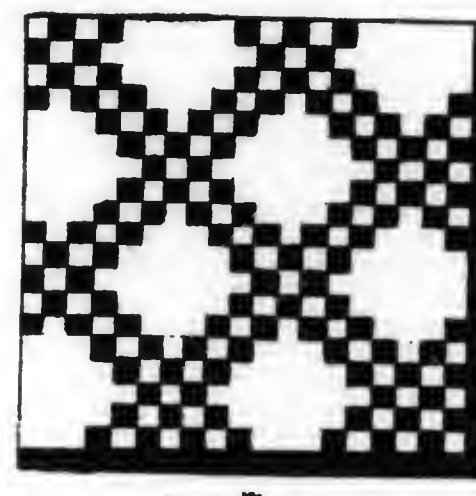
Unbleached Muslin Aprons

These are three of our latest designs in the unbleached muslin aprons of good quality and will give excellent service. We are offering these at the very low price of three for \$1.00, all material sent postpaid upon receipt of price. Ask for Nos. 2011, 2012 or 2013. Address Embroidery Department, Pennsylvania Farmer, 7301 Penn. Ave., Pittsburgh, Pa.



and Irish Chain at 15 cents each. Also two 10-inch square quilting designs, Rising Sun and Harp of Erin—the two for 15 cents.

You may have a free picture sheet of these designs by sending a stamped self-addressed envelope to the Home Department, PENNSYLVANIA FARMER, 7301 Penn. Ave., Pittsburgh, Pa. G. S. S.



Eat Your Spinach, Dear

HAVE'N'T you often said that to the children, and applied the same remark to carrots, too? For children are often reluctant to eat these two vegetables so rich in vitamins and so healthful because the youngsters say that they haven't "enough taste."

One way to solve this problem is to add a dash of granulated sugar to the water in which these vegetables are cooked. It not only enhances and develops the flavors of these vegetables themselves, but it also increases their food value.

Try These

Carrot Boats with Spinach: Cook even sized carrots until tender in boiling, salted water with a dash of granulated sugar. Drain. Cut in halves lengthwise if very large. Scoop out centers of the halves and sprinkle the cavities with salt. Heat a can of spinach, season well with salt, pepper, butter, a little lemon juice or vinegar, and also a dash of granulated sugar. Then pile the spinach in the carrot boats. Stick a potato chip in one end to simulate a sail, or garnish with a sprig of parsley.

Spinach and Beet Mold: Cook a can of spinach with a dash of sugar. Drain, season well with butter, salt and pepper and pack while hot into a buttered ring mold. Keep hot while preparing the beets. Heat canned beets in their own liquor with a dash of sugar. Drain, chop and season well with butter, salt and pepper. Turn the spinach mold out onto a hot, round platter and fill the center with the beets. You may sprinkle chopped, hard-cooked eggs over the spinach ring.

Weatherstrips at windows will help cut down coal bills.

Light-colored walls and woodwork help to make dark rooms light and they also make rooms appear larger.

He bought Stock in a Fake Company

A Bell System Advertisement

A FARMER near Kiowa, Colo., was talked into giving his check for \$500 in the purchase of a certain stock. When this man's banker received the check he telephoned the farmer and told him the company was fraudulent. The farmer asked the bank to stop payment on the check. The banker did so. Saved by quick action over the telephone, \$500.

Lightning struck the barn of a farmer living near Clifton, Va. He immediately called the telephone operator. She summoned neighbors and called the nearest village for help. People came as fast as automobiles could carry them. The house and outbuildings were saved.

The telephone pays for itself many times over—in running errands to town, finding when and where to sell for the best price, in keeping in touch with neighbors and friends. No price can be put on the value of the telephone in summoning aid in time of emergency.

The modern farm home has a telephone that works rain or shine.



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You can save money by ordering your reading matter through Pennsylvania Farmer. If you do not find the magazine you are interested in send us your list and we will quote you rock bottom prices.

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Send all orders direct to
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FREE HILLPOT CHICK BOOK for 1930

Contains house plans, feed schedules, rearing charts, breed qualifications, wealth of valuable information for poultrymen—free.

Tells about the famous Hillpot Low-cost Breeds, and how others, many without previous experience, are making big incomes with them.

SEND FOR YOUR COPY TODAY

W. F. HILLPOT, Dept. 128, Frenchtown, N. J.

To Get EXTRA Good Results—Add Diamond Pick Meat and Bone Scrap to Your Commercial Mash

Mrs. C. J. Doxtater, Willow Brook Farm, Evans Mills, N. Y., is a successful breeder of Columbian Wyandotte hens and Bourbon turkeys. She is also a regular user of DIAMOND PICK Meat and Bone Scrap. We quote from her letter of Nov. 28th: "Enclosed find check for \$4 for 100 lbs. DIAMOND Beef Scrap. It has no equal. Please send it at once as my supply is getting short and my hens are going down in production. . . I have used DIAMOND for years. We add it to commercial mashes and get extra good results."

Don't wait for your hens to fall in production. Order DIAMOND PICK Meat and Bone Scrap now, and get extra good results, even if you are feeding a good commercial mash.

If your dealer cannot supply you, we will ship—
100-lb. Bag, \$4.00—Freight Prepaid to Points in N.Y., N.J., Pa., Va. and W. Va. only. If you are not satisfied with results we'll refund your money. Send for Free Sample of Scraps and Descriptive Folder.

ATLAN MFG. CO., 142-E Logan Ave., Jersey City, N. J.

It's Better Because It's Pure

MAGIC BROODER

Positive in Operation—Gas-Proof—Most Economical On Fuel

Double heat control. Gas chamber and Coal magazine—outstanding features. Fitted with heavy steel deflector, which spreads heat evenly, keeping chicks warm and healthy.

Made in Two Sizes. The Giant Size is unequalled for raising broilers.

Our Improved Roof Pipe adds greatly to the efficiency of any brooder. Catches condensation above roof.

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Big Chicks from Big Eggs

Neuhauser's Winter Layers Can't Help Laying—Egg Production Held in Them

Prize-winning trap-nested foundation stock on males and female sides put egg production pep into birds. Prize winners. Golden Plover—Silver Star—Lighthouse—Laying at 400. Heavy breeds. 5 mos. Strong, husky chicks electrically hatched under conditions that insure healthy chicks. Prompt delivery. 10% alive.

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	50	100	500	1000
Wh. Buff. C. S. C. H. Leg. Aransas	\$1.00	\$12.75	\$49.00	\$118.00
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Get these while they last. A free \$2.00 chart with your order.

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NEARLY EVERYONE RAISES FULL BLOODED "AMERICAN" Quality Chicks

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American or Eng. S. C. White Lechorn	\$1.00	\$12.75	\$49.00	\$118.00
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Light Mixed for Broilers \$2.00 a hundred. Mixed all breeds \$10.00 a hundred. Heavy Mixed \$12.00 a hundred.

Get our NEW CATALOG—It proves to you the success our CUSTOMERS have with our CHICKS. BREEDERS, CULLED AND BRED FOR HIGH EGG PRODUCTION in winter when eggs are high. Reference, Cuneville, N. Y. Book. 100 per cent Live Arrival. Order early.

American Chickeries, Box 218, Grampian, Pa.

IT PAYS TO RAISE THE BEST! GASSON'S LARGE TYPE S.C. WHITE LECHORNS

We guarantee 80% of our Baby chicks to be the largest and best equipped breeding plant and hatchery in Ohio. Latest and best equipped. Induced coloration, from 200 to 250 eggs. 5000 pedigree birds. 1,500 hatched under Ohio R. O. P. Supervision. 7 consecutive years blood testing. Official records up to 210 eggs. Ohio Accredited Baby Chicks, matured cockerels, and 10 week old stock. **WRITE FOR NEW 48-PAGE CATALOG.**

Gasson's Poultry Farms, Box 1, Versailles, Ohio

Epidemic in Flock

We are having an epidemic among our chickens. Never before have we had sickness in our flock, and I am at a loss to account for it. We seem to have two conditions. One condition, I presume, is a form of roup or bronchitis, although they do not act according to description of birds suffering from either of these maladies, as theirs is no running at the nose or eyes but rattling at the throat. There is no feverish condition and birds seem to want to eat up until the last, when they drop down and die in great distress.

Our feeding mash is composed of: 200 lbs. corn and oats chop, 100 lbs. wheat middlings, 100 lbs. wheat bran, 35 lbs. meat scrap, 35 lbs. fish meal, 10 lbs. oilmeal, 25 lbs. alfalfa meal, 5 lbs. powdered charcoal.

For scratch grain, two-thirds wheat and one-third corn. This is the feed we have been using since we confined the chickens this fall. Later on in this letter I will tell you what feeds we used while the chickens were on range this summer.

The second condition—chicken hunch up, close their eyes and remain that way until they die. And just before they die, perhaps a day or two, they roll their heads and act as though they were crazy, and they die in great distress. At the time I find them sick like this, I find no trace of diarrhea, but after a treatment of Epsom salts, they void a greenish substance sometimes frothy and white. This serious condition has been running for about a month, and up to date we have lost sixteen birds, mostly pullets, weighing as much as five pounds. All of our chickens are Buff Rocks.

Some of the chickens suffered so greatly that we chopped off their heads, they bled profusely, the blood was of a very dark color, and we have opened three of the chickens. One evidently was suffering from an enlargement of the liver, as the liver was five and one-half inches in length, but the other two had large dark livers and very large gizzards, but there were no spots on any of the organs, although in one hen I thought the lungs looked a little chalkish. W. F. M.

It would be well for you to send to Professor R. P. Tittler, Bacteriology Division, State College, Pennsylvania, two or three specimens which seem to be affected so that a thorough post-mortem examination can be performed.

The ration which you are feeding should be ample to produce good results. There is no change necessary in your ration.

Apparently some of your birds are affected with onchitis. As a treatment, we would suggest the following: A material known as cresatin may be used. This is a coal-tar derivative. One small drop is put into the windpipe of the fowl. This causes the bird to choke for a moment and then to cough out a long, stringy mass of pus and blood. Relief is noticeable almost immediately. The throat and mouth may be sprayed with cresatin in an atomizer. Usually one or two drops are sufficient.

The other condition in your flock may be due to chronic coecidiosis. I have nothing to offer as a treatment for this disease.

Overcrowding fowls, of course, is responsible for colds which may later develop into bronchitis. Some farmers have considered it wise to use range shelters. These provide ample roosting space and yet afford protection for the birds against the elements. These shelters can be cheaply and easily constructed and they may be moved from place to place.

H. C. K.

Glass Substitutes

Would like your advice as to how to apply glass substitutes to my poultry house, which has windows to the south and is already equipped with glass windows. Should the glass substitute be put on the outside or inside of the glass windows?

SINCE the purpose of the glass substitutes is to admit the ultra-violet rays of the sun which ordinary window glass shuts out, it follows that the glass substitute cannot be put either outside or inside of the other windows, but that the glass windows must be removed and the glass substitute put in its place.

The best way to do this is to make rough frames to fit the window openings and tack the glass substitute

over these, so that after mild weather comes in the spring the frames covered with the glass substitute can be removed and stored in a dark place to protect them from the destructive effects of the hot sunlight, and glass frames returned.

Others simply remove the frames from the window frames and replace with the glass substitute. With advent of mild weather, these window frames are removed and the openings covered with coarse burlap, with ordinary window screens or with old glass substitute in which the coating has shed.

Glass substitutes give best results when used on vertical windows, as life is very short on roof windows exposed directly to the strong sun and to pelting rain and hail. I. W.

Device for Killing Fowl

THE following is a handy, simple device which I have been using for some thirty odd years for killing chickens, hens, ducks, and turkeys.

Simply get a round hardwood block about two feet long and eight or ten inches in diameter and two large nails or spikes. Place the block in an upright position on the ground. Nails or spikes are then driven about half way on edge of block, one inch and a half apart.

In killing the fowl, it is laid on the block with its head extending between the two nails. The fowl is held with the left hand by both stretching the neck somewhat and head severed with one stroke with a sharp axe or hatchet. The fowl is then dropped in a small hole so as not to be bruised by jumping and flopping. By slightly tapping the nail, they may be opened or closed to fit the neck of any size fowl or chicken. W. H. Harrison

Early Purchase of Chicks

"ORDER early" is a slogan to heart, advises L. M. Black, Jersey extension poultry specialist who points out that poultry farmers are frequently forced to accept less-desirable, late-hatched chicks because of delay in ordering from hatcheryman and breeder.

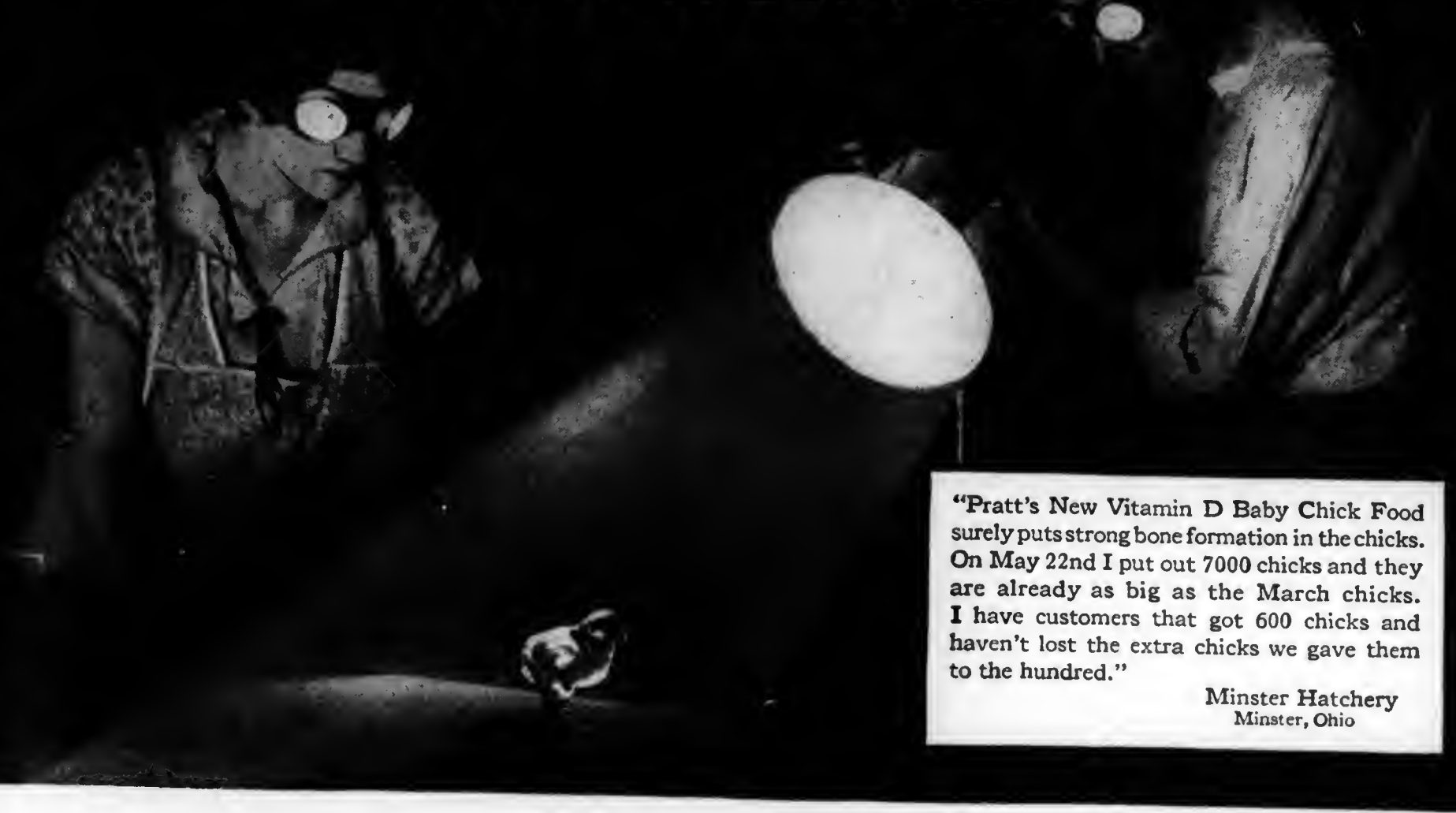
The problems of when and how to buy chicks, and how much to buy for them are important, the specialist says, as success or failure often depends on the quality of chicks bought.

"As to the time of buying," Black comments, "one should consider the purpose for which the chicks are desired as well as the possibility of avoiding disease troubles by early brooding. It may be advantageous to buy two different lots so that production can be maintained during summer and fall months. Early hatched chicks are easiest to manage and are subject to fewer losses from coecidiosis and intestinal parasites. For egg production in New Jersey chicks should be bought after March 1st."

"In buying chicks, it is usually better to obtain them near home so as to avoid losses resulting from careless shipping. The interest which a local producer maintains in his product is worthy of thought. If there is a poultryman in one's neighborhood who is producing a good grade of chick it is well to patronize him."

"Poultrymen are often misled by low chick prices. One should consider the operations which have been followed on the farm where chicks are to be bought. Breeding practices, disease eradication measures, and useful management methods may be reflected in the price asked. A few more a chick, however, may mean several dozen more eggs a pullet when the chick is grown, as well as fewer deaths in the laying flock. The answer as to how much to pay for chicks is intimated in the old saying that 'a cheap chick is as good as a ten-cent hammer.'"

EVEN BETTER THAN THIS—EVEN RICHER IN VITAMIN D



"Pratt's New Vitamin D Baby Chick Food surely puts strong bone formation in the chicks. On May 22nd I put out 7000 chicks and they are already as big as the March chicks. I have customers that got 600 chicks and haven't lost the extra chicks we gave them to the hundred."

Minster Hatchery
Minster, Ohio

SUMMER SUN FOR WINTER CHICKS!

at 1/4 the cost and none of the bother of cod liver oil

You could take each of the new chicks, and give it ten minutes a day under a "sun lamp"—that would be no better than the splendid benefit in Sun-Vitamin D of feeding Pratt's Buttermilk Baby Chick Food, specially processed in sun vitamins.

What a difference Vitamin D is making in chick raising! Leg-lameness, slow growth, low vitality, crooked breast bones, small frames used to make a staggering toll of new chicks every year. Now the abundance of Sun-Vitamin D Pratt makes up entirely lack of sunshine suffered

by mid-winter chicks. Tens of thousands of poultrymen saw the difference last season. Let this season prove for you the profit in summer sun for winter chicks.

This sure, dependable supply of sun-vitamins helps chicks better than ever to get the splendid body-building nourishment from Pratt's. Money can't buy choicer ingredients.

Ground hulled oats; dried buttermilk; cooked wheat; sterilized bone meal; ground whole corn; wheat middlings; ground millet, rape, alfalfa

leaf and blossom meal. Do you know of anything better?

When the difference between the cheapest starting food and a good one like Pratt's is but a fraction of a cent per chick, is it worth while gambling? Bone, muscle, nerve, blood, feather, constitutional vigor and egg record in maturity all depend on those first few weeks of feeding. Think of it!

Nearly every dealer carries Pratt's. Write us for the official Pratt dealer nearest you. We'll send you FREE a copy of a new famous booklet—**RAISING BABY CHICKS**. Chockful of practical points.

PRATT FOOD CO.
291 Walnut St. Philadelphia, Pa.



PRATTS BUTTERMILK BABY CHICK FOOD

ROWING MASH • America's Quality Feed Line • LAYING MASH



This pile of 572 eggs represents the difference in laying between two flocks of fine hens, 100 in each flock—all Leghorns—all from the same hatch. One flock had Pan-a-min with their feed, the other did not.

THIS is a *Bulletin Announcement* of a laying competition conducted on our Research Farm. The two flocks had identical feed and care. They were equal in everything except that only one flock received Dr. Hess Poultry Pan-a-min with their feed. The laying competition continued 100 days.

The 100 hens receiving Pan-a-min laid 5882 eggs, the other 100 hens laid 5310 eggs. The difference was the very respectable pile of eggs shown above, at right—exactly 572 eggs.

**572 more eggs at 50 cents per dozen meant
\$23.83 more profit from the Pan-a-min hens.
Over 23 cents extra profit from every hen.**

Dr. Hess Poultry Pan-a-min (formerly called Pan-a-ce-a) is a conditioner and mineral supplement which keeps hens and pullets in laying trim. Add three pounds Pan-a-min to every 100 pounds of mash. The cost is one cent a month for each hen.

Pan-a-min does not take the place of feed, but no feed can take the place of Pan-a-min. Regardless of the feed you use, you will always get better results by adding Pan-a-min to the ration. You should be getting the extra eggs and extra profits. See your local Dr. Hess dealer today.

DR. HESS & CLARK, INC., Ashland, Ohio

Dr. Hess Poultry

PAN-A-MIN

KEEPS HENS IN LAYING TRIM



**SCHLICHTER
BROODER
HOUSES**

Sunshine and fresh air,
round, all wood, por-
table, sanitary. Hatches
open for your baby chicks.

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Tell-all about our Ohio Accredited-bred, Strong, healthy, well bred flocks selected for high production. Every breeding bird banded. You will make no mistake order the Best Yet Chicks

BLUFFTON HATCHERY, Box C, Bluffton, Ohio



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from
High Egg Laying Flocks

12 years reputation. Satisfies customers our quality. Priced reasonable. Write for catalog and price list.

BUCYRUS HATCHERY CO.

BARRON LEGHORNS

Order Early and Save Money

Send in chick order in during January and February if you want to enjoy the highest on "Superior" flocks. These Leghorns of Barron strain backed by producing records of merit.

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HORTICULTURE

Pruning Tools

If we could give our orchards and other trees constant care no pruning tools would be necessary. All of the pruning could be done by pinching off the buds as they appeared or as they started to grow in the wrong direction. At the best under these ideal conditions a good pruning would take care of all the pruning that would escape us at this early stage. Such close attention to this important work is not possible, and so it is necessary to have a variety of tools when pruning time arrives.

As a smooth even surface is what is wanted on the completed cut the knife is the ideal tool to prune with. A good hawk-bill knife cuts off the twigs and shoots with a sliding motion that does not crush the tissues. The pruning shears are a step further than the knife and they will handle small branches that prove too heavy for the knife to handle.

The two-handed shear is about the largest kind of shear that is needed for orchard work, for all of the branches in an orchard should be well within the reach of its three-foot handles. There are a number of pruning saws on the market. I do not think that those with double cutting edges can be used to good advantage in close quarters without injuring the tissue and bark on the main branches. One of the best saws to use for this work is the kind that has a stiff back with the blade set in like a hacksaw. In this kind of saw the blade can be turned in both ends of the frame and it will therefore get into closer places than any other saw and will give very satisfactory service under most conditions.

Touch Up with Paint
A good stout ladder such as is used at picking time is also needed to get to the higher branches. A ladder that has two wide flaring legs at the bottom and only a single support at the top will be found to be most useful in working around trees of any kind. This ladder provides a good solid base for the ladder to set on while the least amount of juggling is necessary while placing the ladder against a limb or branch high up in the tree.

When the larger branches must be removed in pruning work it is always a good thing to have a small pot of good thick white lead paint along to touch up the exposed surface of the limb that has been removed. It only takes a minute to do this work and as the tree will require two or three years to heal over such a large place a little paint may save a lot of work later which might be necessary if decay should set in before the wound has been thoroughly healed over.

In all pruning work some disposition must be made of the clippings and branches. In the older orchards the tops of the trees are too close together for such rubbish to be burned under the trees so it will be necessary to haul it out of the orchard in order to burn it. A low iron-wheeled wagon is just the thing for this work, as it is easy to load and unload and it will not rub the low hanging branches of the trees as it is driven about the orchard. If the clippings are removed at once as they are cut from the trees it will help materially in controlling aphis, especially if the pruning is being done in the early spring.

W. E. WIECKING.

A Shy Bearing Orchard

Kindly let me know through the columns of Pennsylvania Farmer what to do with my apple orchard of two hundred trees in order to get some profit out of it. They are ten or twelve years old and bear only a little. The land is a red shale or slate ground. Will pruning each year help the crop any? What time of year should it be done? What would you suggest to put on the ground, and how much? A. T. B.

THESE apple trees should be coming into profitable bearing, if they have received good care. Good care of an orchard is treatment which



You might think that I am a boy, but you bet not.

is adjusted to the conditions and needs of that particular orchard; it is not a uniform set of rules, to be applied indiscriminately. Hence, I suggest that you see your county agent, and ask him to arrange for an inspection of your orchard by the extension specialist in fruit growing; when he sees the trees he can advise you with some degree of assurance.

In general, good care of an apple orchard would include the following practice, with local modifications. Plow or disk in early spring, harrow until about June 1, then seed a cover crop to plow under the following spring, such as Japanese millet; or lay down a temporary sod in early spring, being a mixture of red clover, alsike, sweet clover, alfalfa, bluegrass and redtop. Mow this two or three times a season, leaving it on the ground as a mulch. Break this sod every three or four years and reseed, preferably after one year of cultivation and cover crop.

Use sufficient fertilizer or manure to secure an average terminal growth of six to fifteen inches according to variety. This may mean an application of three to twelve pounds of nitrate of soda or sulphate of ammonia per tree, the less the better, provided you get growth. This is applied preferably two weeks before the blossoms open. If a sod orchard, add an equal or greater amount of superphosphate; if a cultivated orchard, it is preferable to apply the superphosphate when seeding the cover crops.

The Main Points

Pruning may be done any time between leaf fall and blossoming. The main points in pruning young bearing trees is to cut out all dead or weak wood, all suckers and water sprouts, (except where a water sprout is needed to develop into a bearing branch) and to thin the branches and twigs so that the sun can strike through to all parts of the tree. It is better to cut out many small twigs on the outside of the tree, than merely to cut large limbs out of the center. Prune every year.

Secure the county spray service, through the county agent, as a guide to the most effective spraying. In general, these trees will need a "delayed dormant" spray applied as the winter buds are bursting, using a lime-sulphur spray testing 1.03 specific gravity; a "pink" spray applied just before the blossoms open, using lime-sulphur testing 1.008; a "petal-fall" spray applied just after the blossoms fall, using lime-sulphur testing 1.008 with arsenate of lead added at the rate of 3½ pounds to 100 gallons; and one or two similar sprays later. Nicotine sulphate may be needed in certain of these sprays, to control plant lice.

Be Kind to Your Horse

You wouldn't ask him to drag 40 or 50 pounds of rocks around for hours just for the fun of doing him work.

Then why ask him to pull a disk harrow that has a draft of 10 to 20 pounds more than necessary. "What him right? Get him a Clark 'Cutaway' Single Action Harrow. It has the lightest draft of any harrow on the market, 40 to 50 pounds lighter. We know that because they've told us so.

At least, investigate! Clip coupon for the coupon book, "Cutaway" Catalog of tillage implements. It's FREE. We'll also send you free "The Soil and Its Tillage." A book worth having.



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Single Action Harrow. It has a draft of 40 to 50 pounds lighter than any other harrow on the market. It is built for better work and longer life. It has a heavy cast steel frame and heavy cast steel teeth. It is built for better work and longer life. It has a heavy cast steel frame and heavy cast steel teeth.

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It tells you how to grow more improved vegetables, quicker and better, some from 5 to 10 days earlier—affording you the opportunity to get more pleasure and profit from your garden.

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Truck Crops

By GILBERT S. WATTS

"FROM whom do you buy your seeds?" From the firms that have supplied me the best seed in the past. And that answer is not meant to be evasive. "Best" implies comparison. Each year it has been my custom with the more important truck crops to use seed from two or three high-class sources. If they are entirely and equally satisfactory no change is made. "New and improved" sorts, if they demonstrate apparent superiority in small scale tests, are given a chance the next year in sizeable plantings alongside the old standards.

This procedure; planting what was best last year from the same sources as last year, dropping out even slightly inferior stocks, bringing in recommended new varieties or selections as they prove superior, is some trouble. But it is the only way the market grower can be certain he is growing the best. Even small advantages in yield, quality, earliness or resistance to disease are important in commercial gardening.

But for the home garden there is little reason, unless it be the fun in making comparisons, why the entire supply of seeds should not be purchased from one reliable house. A number of these, including most of those on my list, advertise regularly in the Pennsylvania Farmer.

INCREASING recognition is being given to the necessity of better grading and packing on the part of eastern growers. The New Jersey Horticultural Society has announced a special meeting to consider this problem alone. It will be held in Trenton on January 17th. Nearby Pennsylvania growers cannot afford to be absent.

The Pennsylvania Vegetable Growers' Association, assembled in Harrisburg, will devote Tuesday afternoon, January 21st, to intensive discussion of marketing problems. This is a matter that must be faced squarely.

ALONG this line, as a result of recent investigations, the Pennsylvania Department of Agriculture has published a bulletin entitled, "Economic Trends of the Vegetable Industry."

Let us quote, "Apparently there is a ready market for greater supplies of Pennsylvania vegetables in the home markets, if the competition of outside states can be met as to market preferences for variety, grade, pack and type of container.... The competition from other states is becoming increasingly keen.

"Competition between the canned vegetable industry and fresh vegetables is becoming more keen each year.... Over a period of years, 1913 to 1928 inclusive, the trend in commercial production of truck crops for fresh consumption has been gradually downward.

"Carefully graded and well-packed vegetables in attractive packages are the most effective means of meeting market preferences." Food there for serious thinking on the part of market growers.

"SOW first week in June for fall use" read the instructions given by a Philadelphia seed house for growing Green Italian (Sprouting) Broccoli. Without doubt the planting time is correct for fertile soils in the Philadelphia district. But it is too late by a month for some of the cooler sections of Pennsylvania. One must be careful not to be misled by the instructions of a seed house whose experience is based on very different climatic conditions.

No planter was ever meant to be a Truck Horse

Cut out constant weeding and cultivating — Grow things this new, modern way under Gator-Hide!

DRUDGERY...the dull, monotonous drudgery of constant weeding and cultivating need no longer be a part of ANY planter's existence. For Gator-Hide Mulch Paper, among its other miracle-working qualities, reduces weeding and cultivating to the absolute minimum!

Gator-Hide stimulates plant growth by increasing soil temperature and conserving soil moisture. In actual tests it has increased the yield of various crops from 25% to 200%—not only increased yield but increased the QUALITY, too. See your dealer today. If he cannot supply you with Gator-Hide, write us direct. But see your dealer first. And send the coupon, without fail, for free booklet NOW!

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A revolutionary improvement in fertilizer-making that saves you \$6 to \$8 on every ton you buy

One ton does all the work that two did before—and does it as well. Savings on freight and hauling charges alone make the new High-Test the most economical for you to buy. Many tests have proven conclusively that this is the best fertilizer we have ever offered. Don't overlook its advantages. Specify Dempwolf's High-Test on your next fertilizer order.

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Your FREE Copy of Green's New Catalog

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AN Important Annual EVENT
Green's catalog is eagerly awaited by thousands. Depended on year after year for news of reliable, Green-tested new varieties; for new information about old standards; for hints on planting, and suggestions for making more money out of your Green-purchased Cortland apple, and a special offer on two-year old trees. Also in the catalog a description of how our free landscaping service works. A valuable book for Home Owners and Fruit Growers. May we send you a copy? It's free and no obligation.

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You may send me a free copy of your new 1930 64-page catalog.
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118.50 buys 100 Down Stiel Angle Fence Posts 6 feet long. My prices will prove this. Price lists free.

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anywhere, any time, any kind. Write for special quotations. For your fence erected complete, I have had thirty years experience in fence building.
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Record Garden Yields

Make Big and Sure Profits
The demand for health-giving vegetables is growing; wayside markets open new opportunities for quick, profitable sales. Use **Isbell's**

New Seed Annual for your guide. It is brimful of useful information—tells how and when to plant for best results—over 400 true-to-nature illustrations—28 pages in natural colors.

Raise vegetables, rich in vitamins for health and profit. Raise flowers for beauty and pleasure. Isbell's northern-grown seeds are dependable, hardy and mature early.

Write Today!
A post card will bring your copy of Isbell's Seed Annual, quoting direct-from-grower prices on farm, vegetable and flower seeds. **It's Free.**

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SENSATION—One of the most productive oats in cultivation, 75 lb. and upward per acre are from 41-46 lbs. per measured bu. of the highest quality. We are making an exceptionally low price in oats. Write for full particulars. Early Cling and White Can Seed Corn, Hybrid Early Cling and White Can Seed Corn, Hybrid White is for sample and price.
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ADVERTISERS in Pennsylvania Farmer want your business. They want to give you satisfactory service and aim to please you. When writing advertisers, tell them where you saw their advertisement. You will do them a favor, as well as help yourself and Pennsylvania Farmer.

Agricultural Engineering

Farm Machinery Survey

TWO years ago the Department of Farm Machinery at the Pennsylvania State College conducted a farm machinery survey to gather pertinent facts regarding the use of farm operating equipment in Pennsylvania.

Both the United States and State Departments of Agriculture cooperated in the enterprise. The survey was made by personal visitation to farms in certain locations of the state which were typical of those sections.

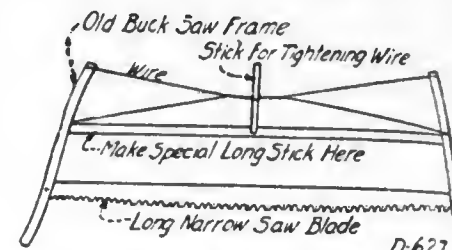
Bulletin No. 237 has been issued by the Agricultural Experiment Station, giving the results of the survey and a copy can be secured by writing to the Agricultural Experiment Station, State College, Pa.

While the bulletin gives much valuable data about farm equipment, attention is called to 75 tractor farms which were visited in Somerset, Westmoreland and Fayette counties. These farms averaged 86 acres in crops. These farmers stated that their tractors would last 10.5 years, although some of the tractors had been in use for over eight years.

Of these 75 farmers 64 said the tractor was a profitable investment. 10 said "no" to the question and one had not come to any definite conclusion on this point. On an average these tractors were used 36.6 days per year; 23 days at drawbar work and 12.7 at belt work. Silo filling, threshing and feed grinding constituted the major part of the belt work both at home and for the neighbors.

I had the privilege of reviewing the sales report of a large well-known farm machinery manufacturer last December. This sales report showed that slightly over 51 per cent of the total business for the United States on "field tools" was tractor drawn equipment. This indicates the trend in this country toward power farming equipment.

R. U. Blasingame.



"Buck Frame for One-Man Saw"

(D-627), consists simply of an old buck saw frame and a longer stick for the middle to fit the length of your five-foot or longer saw. Baling or other wires are then put across and twisted as shown to make frame tight and rigid. The reader who sent it in has used such a device for four years and it has proved both easy and efficient. Either of these devices can be made in a few minutes time, and we urge that you make one and have it ready when the need arises.

I. W. D.

Cold Weather Oil Trouble

MANY car owners still have trouble with their oil circulation freezing up in very cold weather. This is due to the fact that a small amount of water in the form of steam is one of the products of every explosion. Some of this steam works past the piston rings and condenses into water when it strikes the cold crank case walls, just as we can see it condense when it strikes the cold muffler when we start the car on a cold morning. This water collects at the bottom of the crank case and freezes and quickly clogs up the oil intake screen so that no oil can get through.

Most cars now have a crank case suction drawing this water vapor and some oil vapor through the air intake, and this seems to do away with the oil pump trouble. Where such crank case suction is not or cannot be put on, most of the trouble can be avoided by letting the engine stand a while until the water all drains to the bottom of the crank case, then loosening the crank case drain plug and letting a spoonful or two drain out, which will be mostly water and very little oil. Then be sure to tighten the plug and it will go for another day or so.

I. W. D.

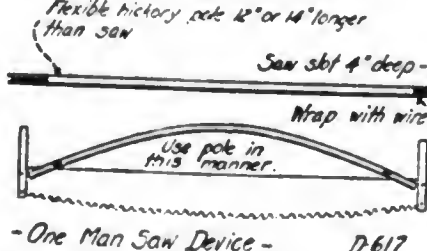
Hydraulic Ram

THE hydraulic ram is a combined engine and pump. It is one of the oldest types of machines for lifting water to the farmstead.

As a rule the ram will pump from one-seventh to one-tenth of the water which flows through it. It is, therefore, not a very efficient piece of equipment, although the water is going to flow down the hill from the spring anyway, so why not use the ram? There is one thing to look for and that is to insure sufficient water for all needs before making the investment.

Suppose then we assume a spring to be flowing eight gallons of water per minute. This would be 480 gallons an hour or 11,520 gallons in 24 hours. One-tenth of this would be 1,152 gallons, for the hydraulic ram runs continuously.

Several of the manufacturers state that their rams can be employed to



"One Man Saw Device"

wards the operator. There are simple devices, however, which solve the problem very satisfactorily.

One of these is shown in the first diagram (D-617), sent in by one of our readers, and consisting simply of a flexible hickory pole about one inch in diameter and about 12 to 14 inches longer than the saw blade. Each end is then sawed in about four inches, wrapped above the cut with broom wire or baling wire, and then slipped over top of saw blade just behind the handles. This keeps the saw from buckling or swaying and makes a faster cutting and more satisfactory outfit than a regular one-man saw.

Another very simple arrangement



How hydraulic ram is installed. If it is not possible to secure enough fall from the spring to the ram without too long a pipe, a stand pipe can be placed in the line as illustrated. This brings the height of the spring water to the correct distance from the ram.

January 18, 1930

PENNSYLVANIA FARMER

(97) 25

It's Things Like This That Make Threshing More Profitable



IT'S the hard jobs that really test a thresher. Any machine will work fine when conditions are favorable. But suppose the weather is against you, suppose the straw is long, damp and tangled, suppose you run into rank weeds or shriveled grain—that's when you need a thresher built for all conditions. One of the essentials in tough threshing is better feeding and better threshing action.

The Case Thresher is the only machine that has these two important features:

1. The feeder can be set to feed high or low to the cylinder. When in high feeding position, the threshing action of the cylinder is greatly increased—just what you need for tough jobs. In dry and easily threshed grain, you simply set the feeder to feed low to the cylinder.

2. Uniform feeding is assured by "volume" control at the straw shoes and upper feed rakes which comb out the straw better than can be done by hand.

The thorough threshing action of the Case feeder results in better threshing, separating and cleaning. Another thing—you probably have never seen a Case Steel Thresher that was completely worn out, yet the first steel machines were sold over 25 years ago.

There are extra profits to be made in threshing. This is explained in an interesting booklet, "Bigger Profits by Better Threshing," which will be sent to you free—use the coupon.

J. I. CASE CO., Inc., Dept. A-55, Racine, Wis.
BRANCHES:
Syracuse, N. Y. and Harrisburg, Pa.

CASE
Quality Machines for Profitable Farming

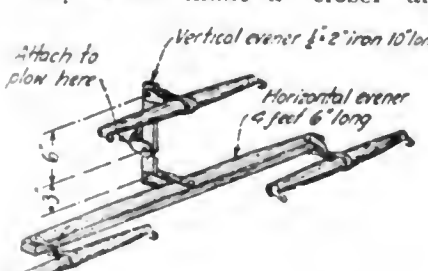
Mail this for New Thresher Book
J. I. Case Co., Inc.
Dept. A-55, Racine, Wis.
Please send me without obligation a copy of "Bigger Profits by Better Threshing."
Name _____
Address _____

Three Horse Plow Hitch

I am enclosing diagram (D-737 and description of the plan I use for hitching three horses to plow or other implement. For double tree I use a 2-by-4 hardwood four feet six inches long, and for even a piece of 1-2-inch wagon tire or other strip iron ten inches long.

H. B. C.

WE are very glad indeed to get this plan, which is rather unusual for a three-horse hitch and apparently would make a closer and



"Novel Three Horse Plow Hitch"

more convenient hitch than the usual type, but saves little or nothing in total width. Where such a vertical even is used with a five-horse tandem hitch in ground containing much loose wet trash it would be likely to drag the trash along, but it seems that there should be little chance of such trouble with this three-horse hitch.

Good Plugs Increase Power

SOME tests recently made in one of the General Motors laboratories showed that an automobile engine in which the spark plugs had been used for more than 12,000 miles developed 31.2 h. p. when run at an engine speed equivalent to 20 miles per hour. The same motor run at the same speed with a new set of spark plugs produced 38 h. p., an increase of 6.8 h. p., or 21.8 per cent. This shows the importance of good plugs for increasing power and decreasing fuel consumption.

Quality Preferred

WHEN you go into town on Saturday for the week's buying, how do you go about it? The chances are that your mind is pretty well made-up—not only as to general description of the products you want, but as to the brand names. You'll mention familiar merchandise easily, naturally. Names of advertised goods.

You prefer advertised goods because you know you can depend on them. You save hours of shopping time in a year because you don't need to investigate or examine the things you want. You don't buy on suspicion—you buy with confidence—because you know goods that are consistently advertised must maintain consistent quality. It is ruinous for a manufacturer to turn the spotlight of advertising on an inferior product. And advertisers know it. Hence advertising is a guarantee of dependability.

Read the advertisements regularly. When you go to buy—be informed!

YOU CAN BE SURE THE QUALITY IS "AS REPRESENTED" WHEN YOU BUY ADVERTISED GOODS.

THE YOUNG PEOPLE

From the Devil's Backbone

THE following is part of a speech made by fifteen year old Walter Cogar of West Virginia at a recent celebration in his home town. His school teacher thought it good enough for publication in Pennsylvania Farmer and we do too. Editor, I am thankful that I am a boy and not a girl; that I am fifteen years old and not a hundred and fifteen. I am thankful that I am Dick Cogar's boy and that I have a good old dad and the best mother in Braxton county. (All boys have the best mother.)

I am thankful that I live on a farm and that I have all the good, wholesome foods that a growing boy needs, such as beans, potatoes, cabbage, apples, peaches, plums, milk, butter, cornbread, wheat bread, and buckwheat cakes for breakfast, and plenty of beef and ham gravy and cane molasses to make them slip down easy.

Take After Dad

I am thankful for a whole house full of brothers and sisters to romp and have a good time with generally. I am thankful that while some of the bigger ones make me step about pretty lively at times, yet there are younger ones that have to take orders from me when dad is not too close around. I am thankful that I have chores to do, but not all of them; thankful that I am bigger than Dave and can make him help get wood, feed and run around and also take his turn these cold mornings makin' fires; thankful for three dogs and a gun and that dad lets me go huntin' at night sometimes and that I get part of the money from the 'coon and possum hides we take in.

I am thankful that we live on the south end of the "Devil's Backbone." This only gives us a good chance to hold his Satanic Majesty down. You see there is a baker's dozen of us when we are all at home and we can make it right interesting for the Old Fellow when we all set our heads and feet both. (Most of us take after dad in our feet, and he wears number seven shoes and number twelve boots.)

I am thankful for the best neighbors in the world. My brothers and kinsfolks live all around me, some with big families and others just startin' big families. The Cogars certainly do believe in the commandment to multiply and replenish the earth, whether they keep any written by Moses or not.

Might Be President

I am thankful that I have to walk from Braxton clear over into Webster county to go to school, some two miles and a half, but the truant officer doesn't have to chase me out with a sharp stick; neither does the board of education haul me to the two-mile limit to force me to take "larnin'."

I am thankful that nobody can tell a boy to quit going to school. He can go right ahead from a Browns Mountain district school to college and Congress and the President's chair if he has the right kind of backing and backbone, and the stuff in him that they make congressmen and presidents out of.

I am thankful that it makes me sick when I hear people whinin' around about nobody havin' a chance in this country unless he is rich. Dad ain't rich, and just look what he is doin' for this rough neck o' the woods in Braxton and Webster. In twenty-five years more he and his kids and their kids can form a new county of their own—Cogar county—and that might swing the balance of power in favor of the party that seems to be indifferent about taking nourishment just about now.

I am thankful nobody knows what our family may do yet.



The first ten in line at the round-up.

I am thankful for the Stars and Stripes that float from the tall pole in front of our schoolhouse. Every morning when I get in sight of the colors being whipped by the stiff breezes something inside of me wants to holler out, "Hurrah for the flag, boys!" I am thankful that this flag stands for the greatest country on earth and that I am a citizen of that country.

I am thankful that I don't drink moonshine nor smoke cigarets. That's bad stuff for boys and girls both, and I mean to let both alone.

I am thankful that my teacher doesn't fool with either one, and I hope the board of education won't send us any teacher in the future that does. I have heard of lady teachers that like to sample both. I hope the good Lord helps them to get over it. It looks awful coarse to me, and I think a school teacher ought to be a walking example for his children.

I say, let everybody be thankful to the good Lord for life with all its blessings in a thousand ways.

BOOK PRIZE FOR BEST LINE

"Give us another limerick," everybody says, so here you are. Add your prize line, rhyming with the last word in the first line, hurry it back immediately to Young People's Editor, Pennsylvania Farmer, 7301 Penn Ave., Pittsburgh, Pa. and perhaps receive the book prize.

A Sad Ending

There was a young lady of Kent
Whose nose was most awfully bent,
She followed her nose
One day, I suppose—
(Add prize line.)

MORE ABOUT KATE

The prize for correct answers and neatest paper in our recent "Kate" contest, goes to Sue Miller of Pennsylvania. Not only does she answer the questions correctly, but sends more questions for you to answer. A book prize will be sent to the one who sends the correct answers, accompanied by the best letter telling what you would like to find on the Young People's Page.

1. Kate leaves her throne.
2. Kate prepares a tonic.
3. Kate consists of many.
4. Kate is the reign of a ruler.
5. Kate gives and receives.
6. Kate doubles more than once.
7. Kate spots a place to live.
8. Kate is a salt of an acid.
9. Kate restores peace.
10. Kate involves in trouble.
11. Kate causes to stagger.
12. Kate conveys ideas.
13. Kate makes like the original.
14. Kate tames animals.
15. Kate sets apart for special use.
16. Kate turns private property to the public treasury.
17. Kate makes things more difficult.
18. Kate assigns things.

Send your letter to Puzzle Editor, Pennsylvania Farmer, 7301 Penn Ave., Pittsburgh, Pa.

JANUARY
January, the first month of the year,
Brings all the children the best of cheer.
It is the month when skating is good,
Which every one would do, if he could.
It is the month when the snow comes down,
That covers all the fields now so brown.
And out from the shed comes every one's sled,
To have a good time until it's time for bed.
Chester Co., Pa. Beatrice Shreiner.

The Youthful Cook

T IRED of eggs? Well, try some of these recipes:—

(1) Serve the eggs on buttered toast with tomato sauce. Tomato sauce is made the same as white sauce except that tomato juice is used instead of milk.

(2) Make a white sauce. To it add the chopped whites of eggs. Serve on hot, buttered toast. Over this sprinkle the yolks which have been forced through a potato ricer or strainer. This is often called Eggs a la Goldendorf.

(3) Escalloped Eggs.—Cut the eggs in eighths. Make a white sauce. Make alternate layers of the eggs and white sauce and chopped meats—ham, beef, chicken. Cover with crumbs and bake in a moderate oven.

(4) Escalloped Eggs.—Make alternate layers of eggs and white sauce and sliced cooked potatoes or macaroni. In making the white sauce add a little cheese. Cover with buttered crumbs and bake.

(5) Slice the eggs. Serve on boiled rice with white sauce mixed with chopped meat.

(6) Chop the whole egg into fine pieces and add to a white sauce in which sardines have been chopped and mixed. Serve hot on toast.

(7) Chop the eggs into fine pieces and add to white sauce in which asparagus tips have been cut up. Serve hot on toast.

(8) Stuffed Eggs.—Cut in halves, remove yolks, mash the yolks, add melted butter, salt and pepper and re-fill the whites. Salad dressing may be added to yolks.

(9) Serve hard boiled eggs, sliced cold, on lettuce with salad dressing.

(10) Serve one half egg stuffed, using cheese with the yolk. Serve on a slice of tomato on a lettuce leaf. Garnish with grated egg yolk, slices of pickle and salad dressing.

(11) Chop hard boiled eggs, add to white sauce thickened by an additional tablespoon of flour and flavored with parsley and onion juice. Cool. Shape into croquettes, dip in crumbs, egg crumbs, and fry in deep fat.

PRIZE WINNERS

Vegetable Contest

Sara Jane Ochs, Elsie Brichner, Juanita Saffie, Kathryn Shank, Ella Martin, Wilbur Moxley, John Danko, John Macheski, Ella Lyons, Charles Duffy and Gordon Wells.

Coloring Spanish Dancer

Ruth A. Alexander, Gloria Herbol, Elsie Joseph, Densel McKinney, Christina Struppek, Jamie Woodfield, Opal Gosney, Minnie B. Varner, Camilla Custagnola and Mary Rabatin.

Washday

Gladys Heiple, John Schlosser, Margaret Krinck, Andrew H. Nissley, Martha Jane Vance, Dorothy Leona Sweeney, Melvin Reisinger, Eva Mary Brinton, Leona H. Guris, Grace Miller, Russell Delaney, Lillian Szymanski and Markaret Vandervort.

"Why does an Indian wear feathers on his head?"
"Why, I guess to keep his wigwam."
"Do you know Lincoln's Gettysburg address?"
"Why, he lived in Washington!"

Covered Wagon 4-H Club

LANCASTER county is noted for doing things in agriculture and they have added another achievement to their list. They have a 4-H Holstein Calf Club of seventeen members in the neighborhood of Goodville, which has one of the most unusual names of any club in the state—The "Conestoga" Calf Club. These calves, ten of which came from the neighboring state of New Jersey, will undoubtedly prove to be profitable investments for the young folks who joined the club. Much credit for the success of this club should go to John Styer their local leader.

The club started last January and held its first round-up in October at the New Holland Fair. The first ten prize winners are as follows: Claire Eby of Gordonville, R. D. 1; Erma Brendle of East Earl, R. D. 1; Cletine Sauder, East Earl; Grant Stoltzfus, Elverson; Henry Styer, East Earl; Mamie Martin, Goodville; Pearl Martin, Goodville; Elsie Metzler, Paradise; Ruth Styer, East Earl and Emory Stoltzfus, Joanna.

The club is organized, holds regular meetings, and in every way is trying to live up to the 4-H motto. Very few members have missed meetings. One or two have been of the one hundred per cent variety.

J. F. Klein.

Assistant state club leader.

Little Folks



Melba Hess and "Rose Marie" of Tioga county Pennsylvania

A Fine Dog

I am going to tell you about my dog. Her name is Blackie. She is a rat terrier. She will catch rats around the house and if they are in the ground she will dig them out and kill them. She will also kill field mice and ground moles. She once treed a ground mole in a bottle and we had to break the bottle to get it out.

About a week ago she holed a skunk under an old tub and it filled her eyes full of perfume. When we go to pick berries she always goes with us. She will speak for her dinner. I think she is a fine dog.

Kessel Burns,

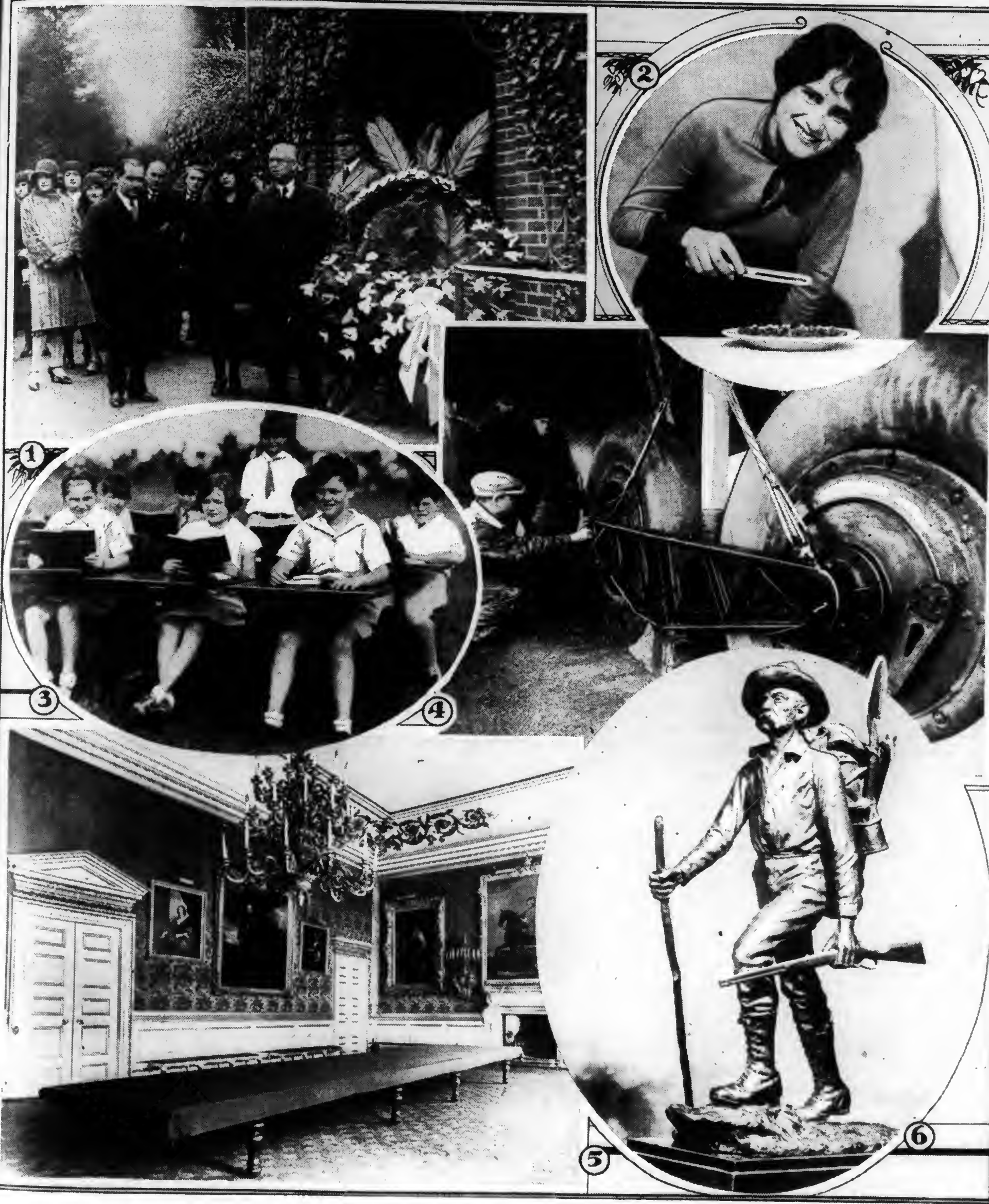
West Virginia.

WHAT A MIX-UP!

Below you will find the names of some Presidents of our country but something is wrong with them. Can you put the letters in the right places and find who they are? There will be pencil-box prizes for the correct lists accompanied by the best letter. Address Little Folks' Corner, Pennsylvania Farmer, 7301 Penn Avenue, Pittsburgh, Pa.

locodje
tejeffnos
kacjnos
adringh
saurifrah
hucbanna

PASSING EVENTS IN PICTURES



(Copyright by Underwood & Underwood)

1. President elect Ortiz Rubio of Mexico photographed at the tomb of George Washington at Mt. Vernon, where the Chief Executive to be paid his respects to the memory of our first President.

In the photo are, left to right Manuel Tellez, Mexican Ambassador to the United States, Senora Rubio and Mr. Ortiz Rubio.

2. La Crescenta, Cal.—Miss Lucille Anderson of Los Angeles holding her special knife with which she won the world's pea-eating championship here, by eating upwards of five thousand pens in exactly one minute and ten seconds.

3. London, England.—A general view of stately main conference room at St. James' Palace where preparations have been completed for the 5-Power Naval Conference. King George has kindly consented to set apart a private section of the Palace for the personal use of officials attending the conference.

4. Dessau, Germany.—A close-up of two of the colossal landing wheels of the great Junkers G-38. At right note the brake.

5. This is the world's largest passenger land plane. It carries 40 passengers and four motors in the wings.

6. Seattle, Washington.—Photo shows "The Trail of '98"—The 10-foot bronze statue of a prospector, designed by Victor Alonzo Lewis for the Order of Alaska Yukon Pioneers, which will be erected here to commemorate the Klondike gold rush. The argonauts of '98 outfitted in the Puget Sound City.

End the Milk Losses

from faulty
udders and teats

YOUR best efforts to win big milk production can be quickly offset if you permit udder troubles to cause discomfort or stoppage. These sensitive tissues MUST be normal and comfortable or definite losses result. A few days' curtailed milk-flow may wipe out the month's profit of a good milker.

Swift, thorough healing means everything—with the daily milking program so vitally affected. Bag Balm, the great penetrating ointment, is designed for just the type of healing needed by these tender tissues. Compounded with this pleasant ointment is an antiseptic oil of marvelous penetration. This exclusive ingredient is used in no other ointment.

A quick healer
in all emergencies

For chaps, cuts, cracked or sore teats, for Caked Bag, Bunches and Inflammations of the udder and other troubles of the milk-producing organs Bag Balm brings quick healing results. For many external injuries healing is often accomplished between milkings. Bag Balm is also widely used for all farm healing and for many human uses. Keep a package on hand constantly. It will save you many a dollar. Remember, there is no profit in a cow with udder or teat troubles that hold up the milk flow.



Bag Balm—in the familiar 10-ounce package—is sold by drug, feed, hardware and general stores. If your dealer is not supplied, it will be mailed postpaid. Do not accept substitutes; they can not produce Bag Balm results. Write us for valuable new Cow Book. An authoritative treatise by a prominent veterinarian. Dairy Association Co., Inc., Lyndonville, Vermont

See the Ayrshire Cows that Walked from Vermont to St. Louis

At Harrisburg, Penna. - - - January 21 to 24

These two Cows walked 1275 Miles in 90 days demonstrating that no breed can compare with the Ayrshire in ability to make the most of any conditions. One of these cows, Tomboy, averaged 41 pounds of milk per day; the other, Alice, completed a record of 11022 pounds of milk, 434 pounds of butterfat and gave birth to a fine bull calf three weeks after completing her long walk, made over all kinds of roads, with only roadside grasses for roughage.

SEE ALICE AND TOMBOY AT HARRISBURG AND PLAN TO PUT AYRSHIRES ON YOUR FARM. Write for Booklets. AYRSHIRE BREEDERS' ASS'N 305 Center St., BRANDON, VT.

Herd Infection

Write for information. Ask for a FREE copy of THE CATTLE SPECIALIST and how to get the PRACTICAL HOME VETERINARIAN a livestock Doctor Book for 25 cents. Find out why your cows lose calves—why they retain the afterbirth—why they fail to breed—why they have garget—why your calves have scours and gutters—why you have a shortage of milk. Veterinary Advice Free. Write to DR. DAVID ROBERTS VETERINARY CO. 126 Grand Avenue, Waukegan, Wis.

RAT CORN

KILLS RATS AND MICE WITHOUT POISON. Sure to give Satisfaction. On hand HARDER, 1000 boxes. Many in use for 32 years are still doing well. LOWEST PRICES OF THE HARDER SLO CO. Inc. Write for Harder Slo Catalog, how direct prices and discounts. HARDER SLO CO. Inc. Box P-1, Cobleskill, N. Y. 22 Pioneer makers of profitable silos.

HARDER

Annual Depreciation Less Than 5%. On hand HARDER, 1000 boxes. Many in use for 32 years are still doing well. LOWEST PRICES OF THE HARDER SLO CO. Inc. Write for Harder Slo Catalog, how direct prices and discounts. HARDER SLO CO. Inc. Box P-1, Cobleskill, N. Y. 22 Pioneer makers of profitable silos.



Leading Herd in County.

W. T. Law of Harrison County, W. Va., and his high-producing herd of cows. Mr. Law's herd of 10 cows made the highest record out of 27 herds entered in the Harrison County Cow-Testing Association to July 1, 1929. Herd averaged 382 pounds of butterfat from 8,950 pounds of milk.

Farm and Dairy

By L. W. LIGHTY

IN reply to an inquiry, hay is very good for breeding swine. They crave it and should be supplied. They are very fond of legume hay. I could not determine which they preferred, alfalfa, clover or cowpea or soy-bean hay. The soy-bean hay they cleaned up the most completely, possibly because the stems were softer.

There is no doubt in my mind but hogs need this material when they cannot get on the ground for green things.

I usually would store a supply where it was accessible all winter, but on occasions this was not the case and I gave them mixed hay. It was surprising how much of this they consumed if none other was available.

Corn, middlings, oats if available, clover hay and skim milk put the sows in a fine condition and they brought good litters in the spring, and were able to supply nourishment for them. The skim milk was increased in farrowing time and the increase was continued as long as the little ones nursed the sow. Some of my friends who sell the whole milk are using dried buttermilk with excellent results to take the place of the skim milk.

It is of the utmost importance to have the sow in a good physical condition, otherwise she may not be able to supply the needed milk for the pigs and soon she will have a litter of runts, or most of them will be such. Many people feed too much corn to breeding swine because it is convenient. Corn is a very important ingredient and should be supplied, but it is just as important that the sow which is to give a big lot of milk, be fed a balanced and wholesome ration as it is to feed the cow that is to yield well in milk.

Doubtless the addition of some mineral mixture now available is helpful. In the earlier days I put before hogs a mixture of charcoal, ashes, salt, coppers and some clean red shale rock. This rock they always ate in the pasture and so I supplied it and they used up a quantity. Possibly the commercial mixtures are better than mine was, but my pigs made me money and that is what I kept them for.

He Has No Luck

A young man writes me from West Virginia that the fates are all against him, while a friend and companion of his has all sorts of good luck.

It is not for me to say that man is subject to good or bad luck or any luck at all, because the wise men have not agreed on the matter. The funny man, Will Rogers, says all he knows is what he sees in the papers, and what I know about this luck proposition is what I saw in my half century's observation.

My young friend cites the extremely poor luck he had with a lot of baby chicks, while his friends had

the best of luck at the same time with some heifers. Such happenings are discouraging, but I am wondering if this unlucky young man has tried to account for his friend's luck. Baby chicks that have no mother, a kerosene or coal stove need a mighty lot of attention. If they do not get it luck is so hard against them that most of them die. Sorrowful experience has taught me this. All livestock is dependent on us. If we do our utmost to know their needs and wants and supply them constantly and regularly just about invariably they thrive and do well. If we do the reverse, and try to escape the blame we ascribe to luck.

Ignorance, slovenly management, unwisdom judgment are the usual ingredients of bad luck. I had an on folks whose motto was: "We do today what you can put off tomorrow." They had a lot of luck.

I watched men who insisted on keeping scrub cows and a scrub mongrel swine and dunghill fowls. They were constantly afflicted with bad luck. I had my eye on one whose wives had excellent judgment but always when the wife would do suggestions the husband would do the reverse in his proceedings, and the doggone luck you never saw!

Putting it this way may not please my young friend, but I am reporting truthful observations.

Discard Not the Old

I write this at New Year. For the prints of the day one would think only the new is valuable and the old is worthless. No greater mistake can be made. In olden time work brought health and contentment, while the new and the modern brought the reverse. In the last two months I had an appalling lesson in this truth. Thrift was a commendable virtue far back as history extends, but squandering was a vice just as bad and is so today. Decency is a cornerstone on which civilization rests, while profligacy always brings demoralization to individual or nation.

Forgiveness and the order of the Golden Rule brought joy and peace to men and nations for all time. The rule of revenge, a tooth for a tooth, a life for a life, has brought devastation and destruction.

Let us not forget that the virtues of old are still virtues even though we have invented and use many new implements and methods. This is true with every one and on the farm. The basic characteristics that made our ancestors happy and respected citizens will do the same for us today.

Lately I read some of the things written about farm practice a

long time ago. Most of it is as true today as it was then.

It is well to give the new due consideration while we hold on to the old that has served the race for many centuries.

Value of Silage

Have you any statistics on the amount of money that may be made daily per cow by feeding silage? What is the fundamental benefit in having a silo? What make silos do you use? C. E. Walter.

CORN silage produces considerable more milk than the same corn harvested and fed dry. Nine different experiments in four different experiment stations show that in every case a hundred pounds of dry matter in a silage ration produced more milk than a hundred pounds of dry matter in a dry corn fodder ration. The following table shows:

Milk from 100 lbs. dry matter.	Silage Fodder	Ration Ration
Number of Trials	Lbs.	Lbs.
Wisconsin (Rpt. 1888), 3 trials	104.2	95.5
Wisconsin (Rpt. 1889), 3 trials	110.5	104.8
Vermont (Rpt. 1892), 1 trial	82.0	76.5
Penn'a (Rpt. 1893), 1 trial	111.9	106.3
New Jersey (Bul. 122), 1 trial	116.2	103.0
Average of 9 trials	106.0	98.6

At the Vermont station the green fodder corn converted into silage and fed with hay and grain produced 11 per cent more milk than the same amount of dry corn fodder fed with the same allowance of hay and grain. The latest experiment which has just come to my attention is one from Iowa. This is not mentioned in the table already cited above.

The Iowa experiments show that there was a remarkable increase in milk and butterfat from the use of corn silage as compared with the same amount of dry corn fodder. The corn silage produced 62 per cent more milk and 55 per cent more butterfat than the corn fodder as the following table shows:

Corn silage vs. corn fodder for dairy cows, Iowa, January, 1924 (Weaver, Shaw and Ely).	Production from 100 lbs. Dry Matter Consumed	Milk	Butter
Corn fodder	1429	158.7	5.9
Corn silage	925	256.1	7.2
Increase	504	97.4	2.7
	35	62.0	55.0

As a matter of fact the comparative returns for the corn silage was greater than that indicated on the table. The table deals with the fodder actually consumed. The amount supplied was far greater. A considerable amount of the fodder was wasted since the cows refused to eat the dry corn stalks.

Iowa also made a study of the returns per acre of the corn crop as silage and as corn fodder. Corn fodder is the term used to indicate the dried corn stalks with the ears on them. They found the yield of silage to be about eight tons to the acre and the cost of the silage was \$4.50 per ton. This gave \$36.00 per acre returns from the corn crop as silage. This acre of corn would yield 3.4 tons of fodder at \$5.05 per ton, which is the value found for the fodder. When silage is worth \$4.50 the 3.4 tons of fodder are worth \$17.17.

The great advantage of a silo is that it handles the corn crop in such a way that it is entirely consumed by dairy cows; there is also less loss through fermentation and the whipping off of leaves when the corn crop goes into the silo. Furthermore the silage is succulent and juicy. It sharpens a cow's appetite and it keeps her alimentary tract in better condition than does dry corn fodder.

Any kind of silo will preserve the corn crop in good shape as long as the walls of the silo are perpendicular and air tight. We have several different kinds of silos here on the college farm, for instance, wood stave, solid monolithic concrete, concrete blocks and tile. They all do good work in preserving the silage. I also know of numerous brick silos that are satisfactory and concrete stave silos of which the owners speak very highly.

A. A. Borland.

FEED TO-DAY -- MILK TO-MORROW

THE feed you give your cows to-day will be milk to-morrow; you can tell something about the quality of your feed by the weight of your milk pail. Remember, milk from a herd is practically the same in composition, day after day—but even on the same farm, raw feeding materials vary in nutritive value throughout the season.

For this reason it requires intelligent use of purchased concentrates to make up in the cow's ration what home-grown feeds lack. That lack must be supplied or production drops immediately.

Amco Open Formula Feeds will supplement adequately, yet without waste, each variation in home-grown feeds. With good clover, alfalfa, or even good mixed hay, Amco 20% Dairy provides all the digestible nutrients required for steady, heavy milk production.

With ordinary roughage, low in protein, you will get best production with Amco 24% Dairy. Where home-grown grains are available, Amco 32% Supplement most economically produces milk.

Ask your nearest Amco Agent for more information about these Open Formula Feeds.



DIVISION OFFICE
MUNCY, PA.



LEWIS H. FURGASON LIVESTOCK COMMISSION AGENT

Windsor, N. Y.

Deals and sells on order all breeds of purebred and high-grade stock. If you have stock to sell or wish to buy, notify me. I can save you money.

SPECIAL OFFERINGS

The best in Guernseys, Jerseys, Holsteins, Ayrshires, Milking Shorthorns, registered or high-grade at right prices, pure or several varieties. Also have high-class pure-bred stallions and mares, and all breeds of sheep to offer.

LEWIS H. FURGASON, Windsor, N. Y.

DAIRY CATTLE

CRAWFORD COUNTY CATTLE
Modified accredited area, the fifth in P. S. P. generally supply buyers with anything in pure-bred or grade Holstein, Jersey, Guernsey, or Milking Shorthorns. They may be in need of quick shipment to any part of the East, Fieldman and service without cost to you.

CRAWFORD CO. COOPERATIVE DAIRY IMPROVEMENT & SALES ASSOCIATION, Market House, Middleville, Pa.

Holstein Bulls For sale, from an accredited pedigree, from K. P. D. P. 32, the 1,100-lb. bull, Crystal Spring Stock Farm, Littlestown, Pa.

Holstein Bull Calf born March 26, 1924, Sir, yearlings average 1,150 lbs. butter, Dan Primo, Angle of Herbywood breeding. Price \$150.00. Further information on request. Also same yearling and two-year-old heifers. V. registered herd CRAOLA FARM, Inc., Clinton, Pa.

NOVA FARM GUERNSEYS—"The original Shady Side Herd." Federal accredited and best type to blood test under State supervision. John Chisholm, Cambridge Springs, Pa.

REG. GUERNSEYS—Ten cows, 6 heifers, open and bred, \$155.00 and up. Bull calves \$80.00 up. Herd rich in Langwater blood. Accredited and blood tested. A. M. Kennel, R.2, Honey Brook, Pa.

Registered Brown Swiss Bull-Calves ELM GROVE FARM, Elm Grove, W. Va.

AYRSHIRE CATTLE of the best blood lines, Herd T. H. Accredited. Blood test of both sex and all ages. Geo. B. McConnell, Wellington, Ohio.

JERSEYS! JERSEYS! For sale, from an accredited pedigree, from K. P. D. P. 32, the 1,100-lb. bull, Crystal Spring Stock Farm, Littlestown, Pa.

Registered Jersey Bull, one year old, Dan's record 537 lbs. butter in one year. Ayr. Herd, White vs. J. M. Main & Sons, Shippensburg, Pa.

TWO VERY FINE REGISTERED JERSEY heifers, 8 months and two heifer calves must be sold. W. F. McSPARRAN, Furness, Pa.

Keep up with the advertisements to keep pace with progress. When answering them say you saw the ad in Pennsylvania Farmer.

The Story of Woodbine Farm

By W. D. ZINN

CHAPTER III.

THE close of the Civil War found much bitterness between the people of the North and the South. This ill-feeling was carried so far as to cause the division of churches and almost the disruption of communities. Both sides were represented in our community by radical leaders, who carried their sentiments not only into the churches, but into the schools as well. There being no free schools at that time, the only means of providing an education was through "subscription" schools. The war feeling being still at high-tide, the abolitionists would not subscribe to a school whose teacher was a secessionist and vice versa.

My mother was a Southern sympathizer but my father was known as a Union man. However, he was not an extremist. I am sure I speak the truth in saying that the slavery question never caused any trouble between my parents. Indeed, my father was so conservative that both his Rebel and his Union friends, when in trouble, came to him for assistance. Our geographical location had made it unwise to be an extremist on either side, because we might be surrounded by Yankees one day and by Rebels the next. But it was not policy's sake that caused my father to be conservative. Like Paul, he was willing to be all things to all men if perchance he might save human souls.



scribe to a school whose teacher was a secessionist and vice versa.

The Yankees hired a school teacher. His only qualification was that of having been loyal to the Union. He came to our house to get my father to subscribe for us children. Judging by his subscription paper, my mother decided that his spelling was bad and his English worse. Neither my father nor mother felt that they wanted to place their children under his tutelage. The Rebels also hired a teacher. He was a graduate of one of the best schools of the state. My parents were a unit in their decision as to which school their children should be sent.

Civil War Prolonged

One of the incidents that is still very vivid in my mind is the meeting of the Yankee and the Rebel school children on their way to and from their respective schools. On many days we fought the Civil War over again. "Here comes the Rebels!" was a common exclamation from the enemies. "You are a set of black Abolitionists!" was our prompt reply. Sometimes a battle ensued, not with fists and stones. There were no casualties, but often we had to retreat to a nearby spring to wash the blood from our faces and hands. One of the sad things about this matter was that, on the other side, were the children of my uncle—my father's brother.

To Escape a Whipping

How different the pupils of those days from those of the present, and how far removed the methods of study and teaching. In that school there were young men and women who must have been past 25 years of age. We were permitted, in fact required, to study alone. The teacher, seated on an elevated platform in the rear of the school room, knew that we were studying, or thought he did, only when our mouths were moving.

One day I had my lesson perfectly but I had to keep working my mouth else the teacher would punish me for idleness. Accordingly, I was repeat-

ing, "mum, mum, mum." Suddenly something happened that attracted the attention of the other children, who ceased to study while I continued to "mum, mum." The teacher said, "I will give you something to 'mum' about." The teacher was a cripple and walked on crutches. He started for the corner of the school room where he kept a good supply of hickory switches. Never did the thoughts come and go more quickly through my brain. My mind ran "on high" for a short time. "I can beat that teacher to the door," I thought and no sooner was it thought than done. A half mile race soon brought me home and I ran into the house almost out of breath. My mother said, "Willie, what brought you home?" I replied, "The teacher was going to whip me with one of those 'ox-gads.'" With an expression of sorrow upon her face which I shall never forget my mother said, "I hope my little boy did not run away from school?" To which question I was forced to answer in the affirmative.

The Rod Not Spared

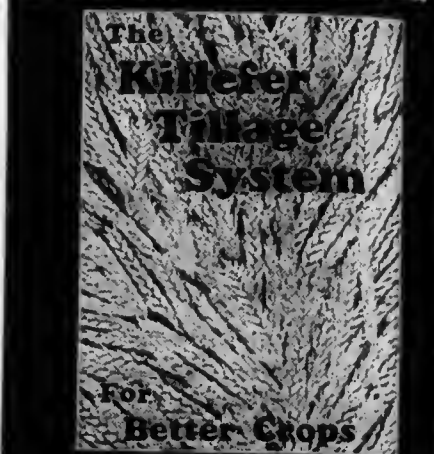
My mother took me by the hand and led me out to the corner of the yard where a sweet-apple tree had been growing for many years. My father had pruned that tree very heavily a few years before and it had sent out a lot of water sprouts. I had hoped she would break off some of the smallest sprouts but instead she broke off the largest within reach and proceeded to give me a sound thrashing. "Will you go back to school now?" she demanded. Thinking of the reception that would be tendered me there, I answered in the negative. Thereupon she took me by the hand and led me back through the deep snow to the school house. Occasionally I played the part of a balky horse when I thought of the greeting I would receive. But my mother knew how to overcome that tendency on my part, for she had carried along with her some of the apple sprouts. On arriving at the school house my mother opened the door and bade me walk up the aisle. She then said to the teacher, "I have brought Willie back and I want you to punish him!"

Food for Thought

I thought I had already received all that was due me in the way of punishment, but my mother decided this would not atone for my breaking the rules of the school. The teacher therefore hobbled to the corner of the school room and got a real hickory switch. In the presence of my mother he gave me, as I remember it, the hardest whipping I ever received in my life. My mother thanked him and bade him good-bye. I sat down on the same seat I had occupied before running away and began to think. I thought slowly and soberly and decided never again to run away from school. I kept that resolution. What would have happened if my mother, angry because the teacher had attempted to whip me, had refused to send me back to school? I am sure I would not be writing this book today.

No doubt my readers would be interested in having a little more detailed information about this school room. The seats were made by splitting saplings in two and putting four or six legs in each piece. The top was dressed with a drawing knife or broadaxe. The seats were backless and all of the same height. Writing tables were arranged around the walls of the room, being set at an angle of about 45 degrees. The entire school practiced writing at the same time. The teacher called out: "Writing

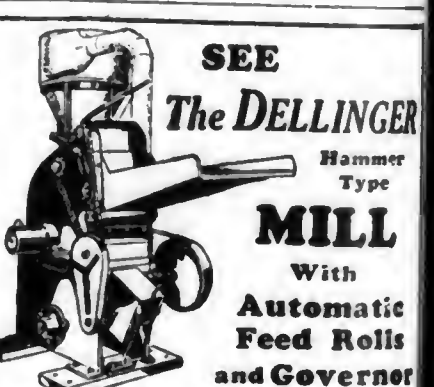
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hour," and we all scrambled to our places. The school opened at 8 o'clock and closed at 4 with three intermissions totaling 1½ hours.

The following are a few of the old copies: "Many Men of Many Minds," "Many Birds of Many Kinds," "Life is Short, Make the Most of It." While the pupils were writing, the teacher passed along behind them and observed their work. He often took hold of the end of my pen-holder and directed my pen, saying, "Make the letters this way!" Those who have had to read my writing know that either I had a poor teacher or I was a dull pupil, for I never learned to write well.

Recreation

Did the boys and girls have games in those days? Yes, indeed, but I do not recall that one school went well across the continent to play another, nor did they put in half of their time training for these games as is the practice in some schools now. Among the games for boys, the most cherished was that known as "Bull Pen." Two captains were chosen, who divided the boys of the school into two groups. They then "threw up" for corners. Those who won took the corners and the other side went into the pen. When the ball was thrown and missed the mark, a boy on the opposite corner was supposed to catch it. Failure to do so caused him to stand aside. When a boy was hit with the ball he was said to be "out." The boy who was most successful in dodging the ball eventually won the game. We often played baseball very much like the boys do now, but we never went wild over that or any other game.

Even if we had had no games, we would not have suffered for the want of exercise. Before we went to school in the morning and after we returned home at night we had wood to chop, cows to milk and pigs to feed. Some one has said that "all work and no play makes Jack a dull boy," but, on the other hand, all play and no work makes Jack a worthless man.

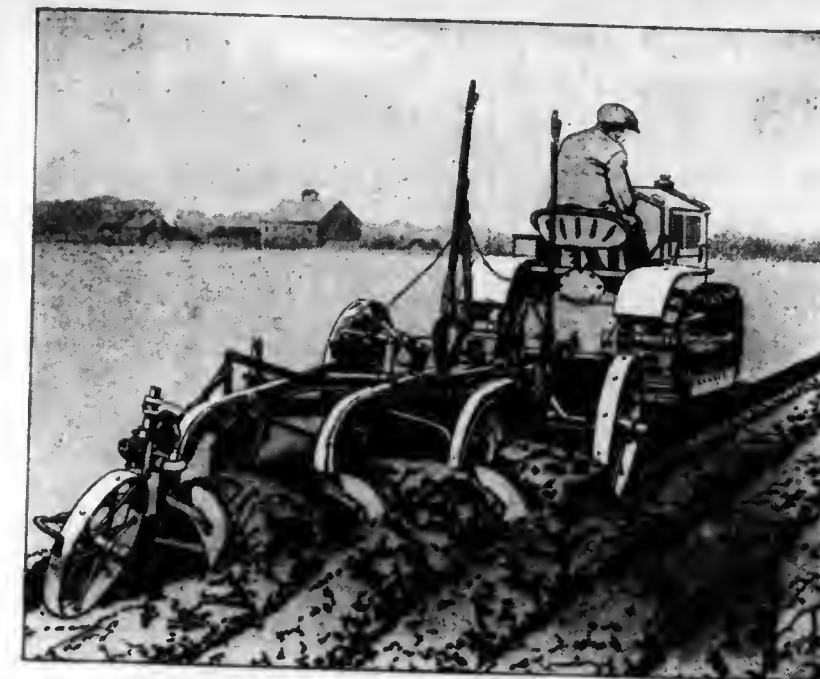
Educate the Girls

If I were a millionaire and had a dozen boys I would teach all of them to work. Our parents allotted to each of us certain work to do during the school term. We felt just as much responsibility for doing these tasks as we did for preparing our lessons for the next day. With only a three or four-months term of school we could not afford to study only in the school room. I am sure that I received more than half of my text-book education at home.

There is a verse that runs:

Backward, turn backward,
Oh time in your flight,
Stake me a child again,
Just for tonight.

If it were possible by the saying of this to have it come true, I would leave off the phrase, "Just for tonight." I would like to come up through life with opportunities such as have the young people of today. As it was I was fortunate in having an educated mother, for which I am duly thankful. That is the reason why, in all my talks to farmers, I have urged them to give their daughters at least as good training as they give their sons. If either is given a preference, the daughter should have it. Much depends on the proper education of the girls of our land. Among other reasons for this is that the child spends considerably more time with its mother than it does with its father. If I could send out a radio message to every parent in the United States it would be: "Give your daughters the proper training and the future of our country will be safe."



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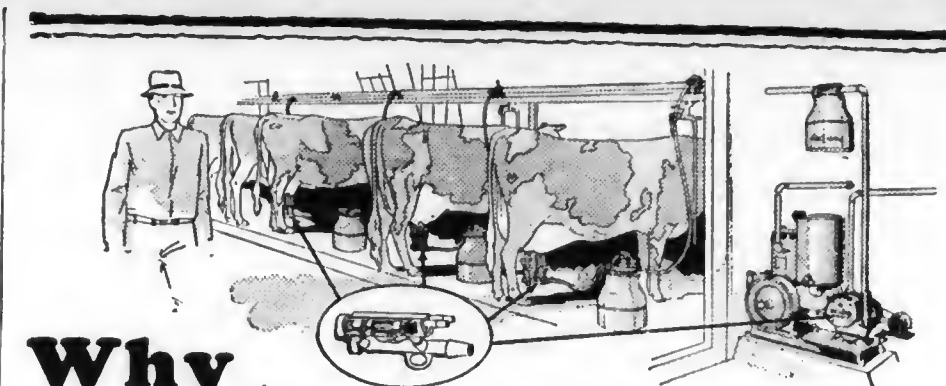
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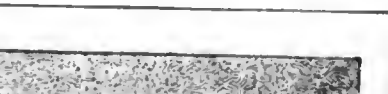
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VETERINARY

By Dr. J. F. SHIGLEY

STIFFLE OUT

Have been reading with interest the questions and answers concerning the problems and ailments of stock. A month or more ago when I brought the cows to the barn for milking I found one with the stifle out. We put it back in place and bathed it with salt and vinegar and the cow seemed to be all right again. But about every two weeks or more it comes out. Is there any way I can keep it in?

C. J. Wilcox.

It is possible that the application of a blister may help this cow's stifle. However, too much should not be expected as the frequent slipping out of the stifle tends to reduce the possibility of its return permanently. Your veterinarian can be of service to you in a case of this sort.

UDDER LEAKS MILK

I am writing you in regard to a heifer. She will be two years old soon and is due to freshen. This heifer is large and well developed, as she has been well taken care of. She has sprung for the first time about three or four weeks ago. What udder she developed was as large as a two-quart crock. It doesn't go down any and when she comes from the field in the evening the milk runs in a stream from both hind quarters. She has never been milked.

J. M. Allison.

It is not a wise policy to milk the cow before freshening. If the heifer continues to leak milk after freshening, it may be possible to control the condition by an operation. Your veterinarian should take care of such measures as are necessary to affect an improvement in the condition.

PIGS CANNOT WALK

I have two pigs about three months old. Ever since they were six weeks old, they haven't been able to walk on their hind legs. Just slide along on their sides in the back. Fred Straub.

Give one teaspoonful of cod-liver oil per day per hog, mixing it in the feed. Add tankage or fish meal to the ration. Allow exercise in the sunshine.

WARTS

I would like to read your remedy on contagious warts and scaling around eyes. One cow broke out in the face with warts. Soon several others began. Now about seven out of 25 show infection. Two or three weeks after warts appear somewhere on the body the hair around the eyes comes off for about three inches, leaving the hide looking like it had been covered with a talcum powder. After the warts are a month old they show white. Is this a quarantinable disease?

M. P.

It has been suggested that warts appear as the result of an irritation due to parasites. It is a known fact that warts may appear where there has been an injury. Scrapings may be made by using a sharp knife and scraping deep over the affected area. Such scrapings may be sent to the Bureau of Animal Industry Laboratory, Box 403, Harrisburg, Pa., for diagnosis.

HORSE UNTHRIFTY

I purchased a range horse last winter but have been unable to get him to eat right. Several have examined his mouth and pronounced his teeth all right, but he just minces at corn on cob and whole oats. Have tried shelling his corn without better results. He drinks sparingly, has a cough, particularly while and after drinking. He rubs his tail and last few days acts like he has a touch of colic.

E. C. B.

A VETERINARIAN should be called to examine this horse. It is possible that there is an enlargement of the glands of the throat either in the nature of a goitre or enlargements developing as a result of strangles or influenza.

A diagnosis of worms can be made either by examination of feces for eggs or by finding worms in the feces. Washing the body with a solution of dip, repeating in seven to ten days, will rid the body of lice. The stall should be sprayed with dip solution at the same time.

HYSTERIA

I have two hound pups eight months old which seem to be all right, but times will suddenly start to bark and run around in a ring and froth at the mouth. Seem to be bewildered. Is this wrong?

G. W. Shigley.

One should be suspicious of sites as a possible cause. It is also possible that foreign food, starchy foods, limited ration and close inbreeding may be factors. Would suggest that you take two dogs to your veterinarian for treatment. Such an office call is not an expensive proposition and will serve to check the condition or promptly.

HEAVES

Have a horse that got the heaves last spring. What can I do for him? At times she is pretty bad.

G. D.

The morning and noon feeds consist largely of grain. The bulk of the hay should be fed at night and it should be clean and free of dust. The bowels should be functioning properly. Stimulation of the digestive tract may be expected if grass is allowed. Oilmeal or bran may be of value. During the heat of day this animal should be allowed rest, if at all possible.

UDDER TROUBLE

Will you please tell me what is trouble with my cow? She had a fever five years ago, but got over it. Four years ago she got over it. The milk leaked out for years, but never seemed to hurt her. Then for about two years the milk has been growing up. Last September she came fresh again and well until about a month after freshening when one old morning I found her standing and shaking as if she were in pain. The last month or two she has just stands or lies around, seems to have no ambition, and her milk is yellow like a fresh cow.

M. P.

It is suggested that this cow be milked on a milking schedule of times daily for a period of two weeks. It is possible that this may clear the udder condition. It would be to have your veterinarian examine the udder to determine the condition of the quarter where the teat was off. Foreign bodies in the teat or second compartment of the teat each may be the cause of trouble.

RUPTURE

I have a fine horse colt that seems to be a ruptured inguinal hernia. The lump is in the side of his sheath. The lump is the size of a small coffee cup. With the one can push the lump back. Do you think anything can be done for it?

G. W.

This is known as an umbilical hernia or hernia. An operation can be performed without cutting the skin. Your veterinarian will be able to care for this condition. It is a full whether a bandage would be successful. It might be used, however, for a time in which case a bandage could be placed in the inguinal directly over the rupture to keep back into position.

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Exactly what do we mean by "success in baking"?

Sometimes when we speak of "success in baking" we mean merely avoiding failures. That's an important matter, certainly. It's so important that Pillsbury spends thousands of dollars testing Pillsbury's Best Flour—testing it by daily baking, by every scientific method known, to make sure that every sack is just like every other sack—that it will work perfectly for any baking purpose, bread, biscuits or pastry.

But there's another kind of baking success which is more than a matter of dodging failures. It is an achievement—*perfect flavor*, that small but all-important improvement in taste which is the mark of real success in baking. Women whose foods have this delicately richer flavor have learned to follow one important rule. They select ingredients with greatest care (flavorings, shortening, etc.)—and they

use a flour that is *rich* as well as dependable—Pillsbury's Best. Pillsbury's baking chemists have discovered one secret of finer flavor. They have found that there are certain blends of wheat which make a richer flour—and that foods baked with this richer flour have a better flavor. Pillsbury's Best Flour is milled only from this carefully selected, plump, full-flavored wheat. It gives you double value—dependability, *plus perfect flavor*.

Isn't it worthwhile to have this double quality? To know that your flour will never cause a baking failure—and more than that, to know that all your foods will have that delicately richer flavor that is the mark of finest baking? Simply be sure to get Pillsbury's Best Flour—all good grocers have it. Ask for it by name—for better flavor and more certain success in all your baking!



ORANGE SHORTCAKE

2½ cups Pillsbury's Best Flour ½ teaspoon salt
4 teaspoons baking powder 1½ cups shortening
1 cup milk

Sift together the flour, baking powder, salt and sugar. Work in the shortening with the tips of the fingers. When flaky add the milk gradually, mixing with a knife until a soft dough is formed. Turn out and transfer dough to two oiled square layer cake pans and flatten down even. Bake in a very hot oven (450° F.) for twenty-five minutes. Put together with sugared orange sections. Cover with sweetened whipped cream and garnish with orange sections.

Recipe furnished by Mrs. Ida Ball Allen, President of the National Radio Home-Makers' Club. Hostess Mrs. Allen every Wednesday morning over the Columbia chain: 10:30 a. m. Eastern Standard time.

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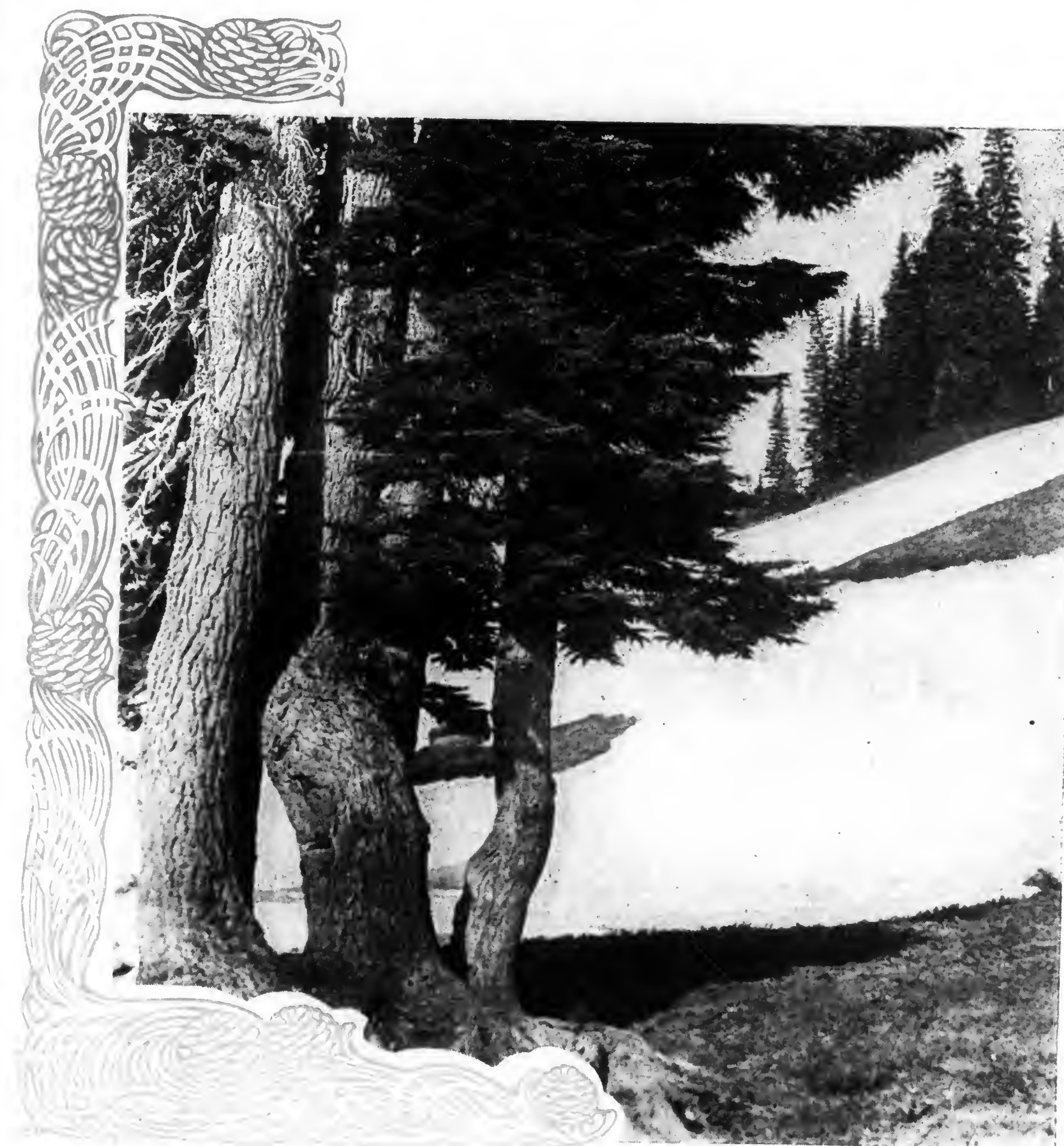
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January 25, 1930



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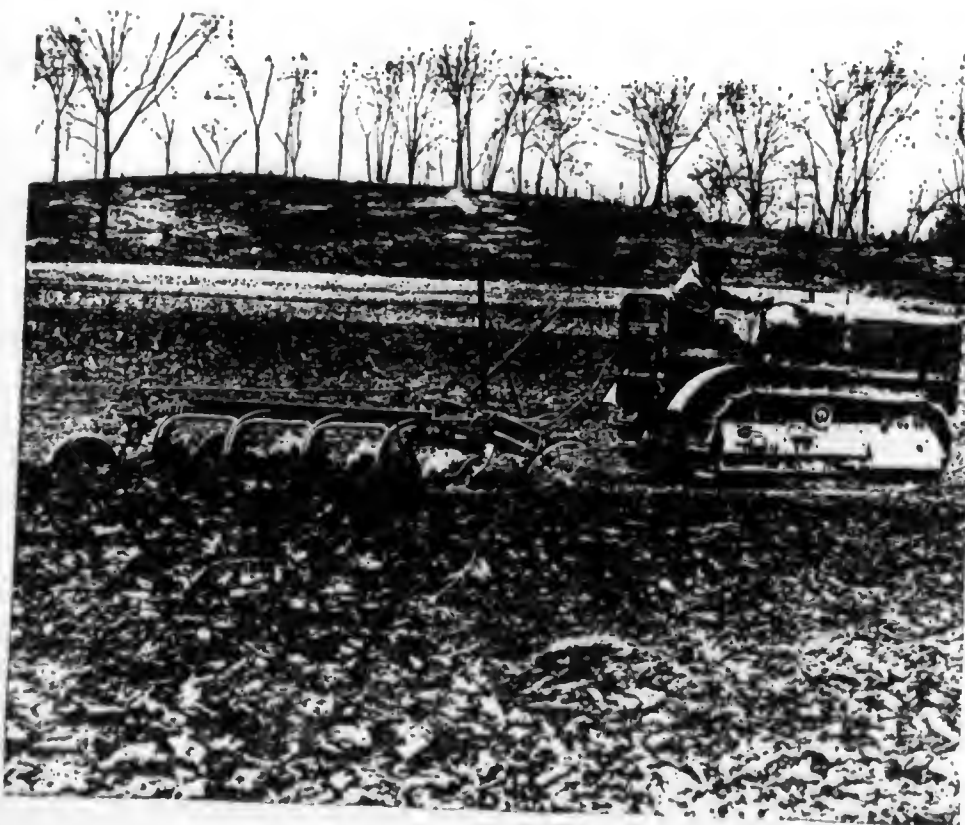
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FIFTEEN . .	\$1450	THIRTY . .	\$2375
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CATERPILLAR TRACTOR



What Is Farm Income?

By CHARLES H. WASHBURN

AT a meeting of extension workers held at Jackson's Mill, West Virginia, in October, it was stated that, according to recent investigations, the average West Virginia farm family should have approximately \$1,189 a year in order to live in an ordinary degree of comfort. It was further stated that a national estimate yielded practically the same figures; while the actual average income of a West Virginia farm family is less than \$639, the national average.

Forty West Virginia farm women made the estimate of the requirements of an ordinary family of five, and their budget is as follows:

Clothing, \$382.74; food, outside of farm produce, \$239.60; education, \$123.85; church, \$23.50; health (including a physical examination for every member of the family) \$62.50; miscellaneous operating expenses, \$169; light and fuel, \$105; recreation, \$68.50; and social activities, \$15; total, \$1,183.63.

There can hardly be any criticism of this estimate of the minimum sum needed yearly by the average farm family. But the amount used under each separate item may well vary in different families, and from year to year. I find that three if not four of the nine items agree very closely with my own family expenditure. However, it is not this budget, but the method of computing farm income that seems in question.

Sixty per cent over \$1,200

At the same meeting referred to above, Mr. H. G. Sturm, county agent of Harrison county, West Virginia, is reported to have stated that 60 per cent of the farmers of this county had an income of \$1,200 per year or more. This statement was given wide publicity in the daily papers and in the Pennsylvania Farmer; the figures given in the latter, under date of November 9, bottom of page 7, being "a net income of \$1,189, or more."

It seemed to me that the estimate of my good friend Mr. Sturm was a little too high, so I took occasion to ask him if he included income from oil and gas in his figures. He replied that he did. "For," he said, "it is what a farmer has to spend that must be taken into consideration." I am still inclined to differ from our genial and efficient county agent, though that difference is based on our respective conception of farm income. In a recent communication to the writer, Mr. Sturm says, in part:

"Our talks have been dealing with family income rather than that of farm income. . . . you have dealt with farm income alone." This, it seems to me, is a mere quibble, an attempt to muddy the water.

Now, what do we mean when we speak of farm income, or the income of a farmer? Do we not mean the proceeds from the sale of farm products and livestock?

Income from Other Sources

If we include royalties and rentals from oil and gas, should we not also include the proceeds from the sale of land; bequests from a deceased maiden aunt; returns, if any, from gambling on the stock market—though I am not aware of any farmer in my section "playing the market"—and the like? All these may be sources of income to a farmer, but are they farm income?

Farm income, as I see it, is derived solely from the sale of farm products and livestock. If timber is sold as a crop, with due conservation and replacement by planting, or seedling, then it may be regarded as a farm product. If it is cut and sold with no effort or intention to replace by planting or by natural means, it is mere "skinning" of the land, the proceeds can hardly be considered farm income. Standing timber is reported, I believe, in this state, at least in part

of the land; that is, really. The proceeds from selling anything that is a part of the land, such as coal, timber (except as before mentioned), oil, gas, stone, minerals, and the like, which is sold with no intention of replacement, or which cannot be replaced, I do not believe to be farm income. This is depletion, not production. To sell such things is like drawing a check on one's account in the bank; the proceeds of such a check can hardly be regarded as farm income.

When Surplus Is Invested

If surplus farm income should be invested in more farm land, then, it would seem, the proceeds from the production of the additional acreage should be regarded as farm income. If, however, surplus farm income should be invested in stocks or bonds, or in manufacturing or merchandising, it is doubtful, in my opinion, if the proceeds of such investment should be regarded as farm income. The funds thus invested have already been taken into account as farm income; unless invested in additional farm land, as stated before, I can see no reason why the proceeds from such investment should be regarded as farm income.

Let us suppose, for instance, that a farm is sold, and the money invested in a store. Would the profits of the store be farm income? If surplus farm income be invested in the same way, would the profits be farm income? I think not.

Yet, according to my good friend Mr. Sturm, "It is what a farmer has to spend that must be taken into consideration," apparently regardless of how the farmer gets it. On this basis Mr. Sturm may be right in his estimate of a \$1,200 yearly net income for 60 per cent of Harrison county farmers; though I am inclined to think his figures too high.

An Erroneous Impression

Many farmers have sources of income, large or small—usually the latter—outside of the farm proper. But whether that income is derived from an oil well or a gold mine; from labor on the local roads, or from selling books; I do not think it should be classed as farm income.

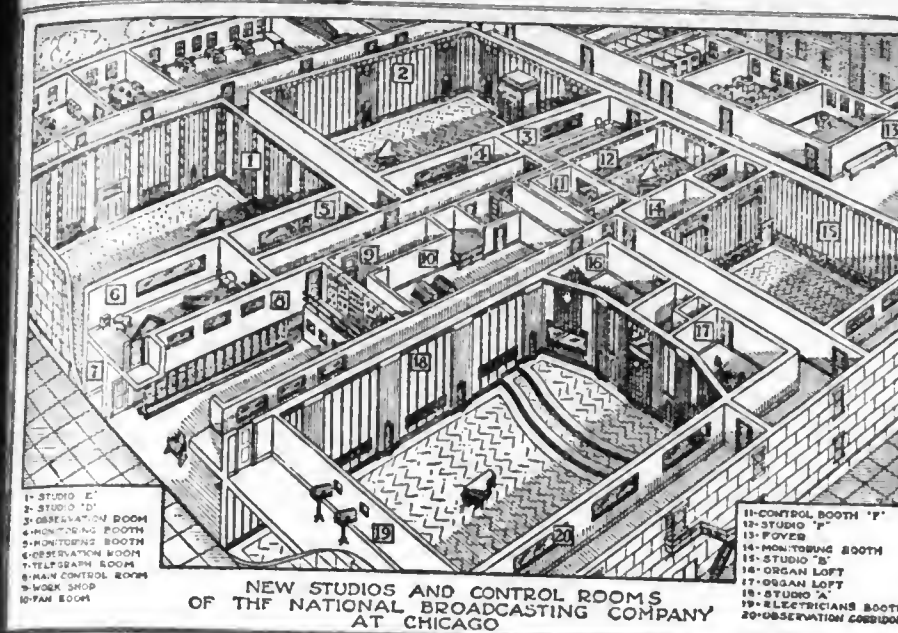
If a true appraisalment should be made of actual farm income; that is, from the receipts from the sale of farm products and livestock, with proper deductions for "overhead" such as interest, upkeep, taxes and the like, I do not believe that 60 per cent of the farmers of Harrison county have an income of \$1,200, or even \$1,189, per year.

The Good Hope community in which I live is considered one among the best in Harrison county. There are about seventy families in this community, of which between thirty and forty are actual farm families. I doubt, from the best of my information and belief, if more than one farmer in our community has a net farm income of \$1,200 per year. By net farm income, I mean farm income after proper deductions have been made for overhead, as stated before.

As I see it, my good friend Sturm's method of computing farm income gives a wrong impression of the production of farming. A net income of \$1,200 per year; what seems to the city man to be free "eats"; a house without rent; and all nature to receive in this looks like a foretaste of paradise to the pent-up urbanite! It is to correct this glamorous but erroneous impression that I am writing this article.

OUR COVER THIS WEEK

THE winter scene on our cover this week is actually a summer scene, being mid-summer snow at the Grand National Park, Washington.



Broadcasting studios of the National Broadcasting Company on top of the world's largest office building in Chicago. All the latest improvements in this rapidly growing industry have been incorporated in this plant.

Gloom and Gladness

By FRANK K. RICH

DEACON HYNÉ gave Caleb Peaslee a questioning glance as he came to a pause near the field which the latter was busily harrowing.

"I'm glad to hear you whistlin' so cheerful this mornin', Kellup," he announced. "I caught a glimpse of you yesterday and you looked so forbiddin' and downcast I almost worried over it, but this mornin' you've chirped up like a bird." "I sh'd say."

"What a fool a man c'n make of himself," Caleb said, seemingly at random, the deacon thought. "All day yesterday I was in the dumps; no more courage to work than 'sif I'd never been workin'—and all on 'count of Latham Tyler. And I've known Latham and his ways ever since I was old 'nough to know anything. But I lean slow and hard, seems to me, sometimes."

"Latham?" the deacon wondered, and then—"I s'pose likely he didn't do much use in fall plowin'," he hazarded. "Or mebbe the ground didn't look right to him?" Caleb nodded. "Both," he admitted. "And other things, too. I was a fool to even listen to him." He went on, "and more fool to pay any heed to what he said. But he did, and it amounted to this: all day yesterday I didn't accomplish 'nough to pay for my food and bed, if I'd been charged for it."

Caleb Quits Work

"He came along," Caleb proceeded, "early in the mornin', jest as I come out with the hosses to start in harrowin' this piece of ground; and he sat down on that boulder there as 'sif he was a frog and went to croakin'." At first I decided I wouldn't pay attention to a word he said—but you can't shut out a steady drone of talk. I can't, anyway, and the first thing I knew I was gittin' discouraged. I do the best I could to keep on workin'."

"He picked up a handful of the soil and shut it in his hand to crumble it, and it made him think of a piece of ground he planted one year and never got his seed back—it was sour, claimed. Well, I knew, or ought to know, that my land ain't sour, but I let him talk drove all that out of my mind, seemin'ly, and b'fore he got through I c'd see that field comin' to sorrel as thick 'sif it had been sown there. He took up the better part of an hour gittin' me to feel that way; and then he started on the other side of the field."

"Fall plowin', now—he never done himself, 'count of not bein' able to do it any way except as a bill of exchange—you'd got to plow it again in

the spring, anyway, and why wa'n't one plowin' 'nough? And it didn't matter that in my heart I know, just as you do, Hyné, that nothin' mellers ground like frost workin' on it after it's been plowed in the fall. He talked so d'spondin' that by noon (when he got through talkin' and I took the hosses to the barn) I told my wife I'd got through in the field for the day and started to chore 'round the house for her, doin' things she p'inted out to have done—things that needed doin', of course, but nothin' you could figger much profit in, same's there is in fall plowin'."

Such a Difference!

"Not to go into everything he saw gloomy, I'll jest mention smut in wheat, so's it hardly paid a man to take the chance of sowin' it, and who the frost ketchin' beans and sp'lin' 'em, and the bugs eatin' 'taters so it cost all they fetched to save 'em—and everything like that 'til he got me where I'd almost a mind to try and find some other way to git a livin', even if farmin' is the only thing I know how to do—and some of the time I don't know that any too well, seems to me!"

"I kep' on feelin' that way 'till long to'rds evenin', when I took a little stroll out to the field again; and who should I meet but Uncle Thad Parlin—and the difference in the way he talked from what Latham did made all the difference betwixt me gloomin' and whistlin'."

"He was glad to see one farmer stirrin' 'nough to git some fall plowin' done, and he thought (and said) that he never saw ground look better or seem in better tith; and he thought seed wheat give a bigger yield than it ever did in his young days; due to seed 'slection, of course; and he figured if I seeded that piece of ground down in the spring I ought to git a hay crop as high as two ton and a half to the acre—all I'd have room to make on the ground, anyway, and mebbe more. And in twenty minutes he'd took away the d'scouraged mood I'd got from Latham—more'n that, he'd got me so heartened I c'd hardly wait for mornin' to git at the plowin' again. And you heard me whistlin' for jest one reason—because I felt like whistlin', and all on 'count of Uncle Thad!"

"I know," the deacon said. "There ought to be some way of equallin' up betwixt 'em, seems so."

"I wish they c'd do it by taxation," Caleb said. "Uncle Thad's taxes ought to be abated, 'count of him bein' an advantage to the town; and they ought to double Latham's—and even then they wouldn't offset the damage he does!"

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It's Granular—flows freely

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—Morse Brosman, Ephrata, Pennsylvania

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But progress is not confined to transportation and communication. Progress in the production of plant-food for your crops is scarcely less remarkable. Nitrophoska is the modern concentrated fertilizer, just as the radio is the modern means of communication.

You can reduce your fertilizer cost per acre by using Nitrophoska—the modern concentrated complete fertilizer containing 60% of real plant-food (15% Nitrogen, 30% Phosphoric Acid, 15% Potash). It costs less per unit of plant-food, and you handle only one bag instead of four!

Nitrophoska is the proven economical fertilizer for potatoes, vegetables, pastures, corn and most other crops. Send at once for important free book and the name of your nearest dealer.

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I offer you BERRY PLANTS at WHOLESALE

Don't waste time on ordinary plants. My Hardy, Northern Grown plants are bred and grown scientifically and then carefully selected, one by one for shipment. They are not taken from old fruiting beds, but are grown for plants alone. Set some of my plants this year, in both the older, well known varieties and the Newer Better ones, and assure yourself a giant crop of choice fruit that will bring premium prices. In addition to this extra quality I offer you real wholesale prices on a few plants or many.

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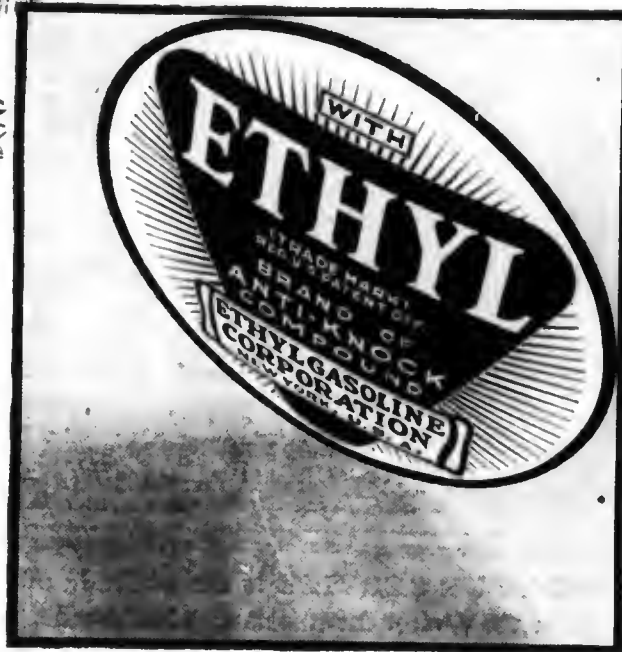
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Latham, the new red raspberry, yields extra-large, continuous crops. Will not "winter kill." Fruit ripens evenly, and brings premium prices. Every plant double-inspected and disease-free, very high grade.

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Concord is the greatest grape grown. It is hardy, productive, and will grow on any soil. Proven good in every section of the country. Extra cool prices on guaranteed grade, 2-year plants.

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The new "Blackberry without a core." The greatest blackberry ever introduced in every way. My plants are the highest possible development of the strain. Very hardy, productive and vigorous.

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BOX 7 - BRIDGMAN - MICHIGAN

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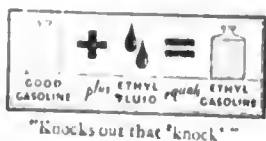
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knock compound, which was developed by General Motors Research Laboratories to make gasoline a better motor fuel.

Look for the Ethyl emblem. Let Ethyl start to work for you today. Ethyl Gasoline Corporation, New York City.

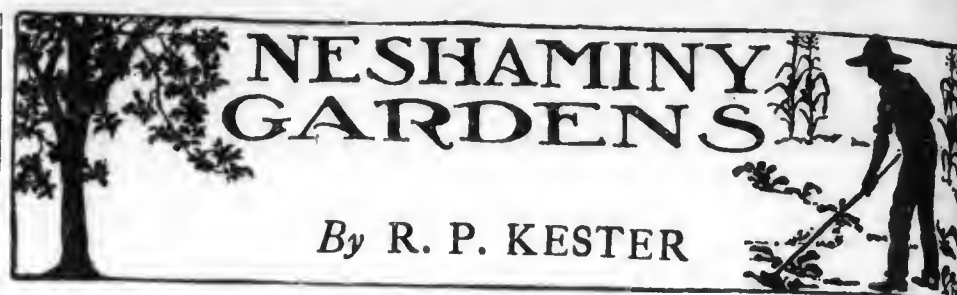
Wherever you drive—whatever the oil company's name or brand associated with it—any pump bearing the Ethyl emblem represents quality gasoline of anti-knock rating sufficiently high to "knock out that knock" in motors of ordinary compression and to develop the additional power of the new high-compression motors.

The above statement was used in first fluid in national ad.



**ETHYL
GASOLINE**

3 E. C. 139



A FRIEND in Somerset county, Pa., writes the following: "I have a little farm of 30 acres on which I raise truck and berries during the summer months, and teach school during the school term. I am also interested in poultry, and am starting out on a small scale. Last spring I bought 200 chicks and tried to raise them without a brooder. The result was that I got only 100 raised. Out of that bunch I selected 39 pullets, which averaged 31 eggs per day during the month of December, and for the month of January they have averaged 33 eggs per day so far. I feed them greens, meat scraps, green bone, egg mash and a mixed ration of grains."

"I want to tractorize my farm and would like to have your advice on what kind of tractor to use for cultivating purposes. I bought an old one and sent for parts to fix it up to do my plowing and other heavy work. It weighs about 1,400 pounds and cost me around \$225. It does the work of two horses, but is not suited for cultivating."—G. H. B.

I have omitted the pleasant things Mr. G. H. B. says, but am appreciative. The poultry business has for several years been a fairly good and safe business, especially if one has good stock and feeds intelligently. G. H. B.'s foundation stock is evidently good. He has better results from his home mixing of feeds than most beginners have. The average person will do better to buy a good, standard commercial feed than he will to mix it himself.

I am not interested in the selling or promotion of any commercial feed, but our own experience is that it is cheaper and more profitable in every way to depend on a mixed formula that has the backing of scientific experimentation.

I shall mail the inquirer the name of the tractor we use, but it is understood that I do not claim it is the only satisfactory kind made. But it does what is claimed for it and we have used it two seasons with full satisfaction. I have been experimenting for five or six years along this line and have tried different makes, some of them proving worthless for our use.

The use of power on the farm and in the home is being urged from every quarter now, some kind of power that is cheaper than that derived from human and animal muscles. We are told that mechanical and electrical power is necessary to conserve life and relieve the drudgery in making a living. But it must be efficient and be used intelligently. All such power costs actual cash and must be utilized in such a manner as to return a profit; at least, the time and energy saved by its use must be used to advantage, or we will not have incomes sufficient to carry the cost.

The urge to be up to date may be carried too far. Farmers must always weigh the cost of a thing against the advantage. If it is necessary to keep a team on a small farm for work that cannot be done by other power, the expense of a tractor may not be justified. But if a tractor will displace horse power it is another matter.

When we started Neshaminy Gardens, a development that was to be conducted in connection with editorial work, I started the discussion of farming without horses. I had a few letters from horse lovers that didn't read pleasantly. Now, there is a good bit of sentiment in my nature, and I have some love for horses, but neither one is strong enough to induce me to

squander time and money in keeping a horse 12 months for six months work.

But Twentieth Century farmers must not forget that the whole system of life on the farm has changed from that existing a generation and more ago. In the days of our fathers the main business on farms was to produce the greatest possible proportion of the needs of life—food, clothing and shelter. Very little money beyond what was needed for taxes, interest, tea, coffee and sugar was expected or needed. That condition has passed.

In these days farming is a business of raising and selling some thing or things in order to get money to buy the thousand and one things enjoyed today, but which our fathers never had or dreamed of. For this reason farming must be conducted on a strictly business basis or go under. But human nature will have to undergo great changes before it can be sentimental over a gasoline engine or an electric motor.

Friendly Talks

By
Edgar L.
Vincent

THERE is a good deal of pleasure in making out an inventory of one's farm belongings at this season of the year. It is a good thing, for it shows us just about where we stand, as far as this world's goods are concerned.

But did you ever think that another inventory is being made of your actions from day to day? No, it is not likely that you ever did, or that you are even aware that such a list is being made.

But that day when the baby was cutting teeth and so restless that mother was all tired out, did you get the little one up straddle of your neck and trot him around the house with his curly hair was dancing out like beams of sunshine and the trouble was all gone out of his heart and mother was rested again and all right?

Or was there a man down the road who had a sore foot right in haying time; and did you help him out with his work when he did not know which way to turn for some one to give him a lift?

Or was there another man with a heart sorer than the neighbor's foot and did you find out what was his trouble and stay by him till the shadows lifted and all was well with him again?

If you have done these things they have all been listed and they are your best inventory, written in the hearts of those who know you and who love you.

But you never will make any account of the little things you have done that way. Soon they will have passed out of your recollection, and you will be like the folks of the long ago who asked: "When saw we Thee hungered and fed Thee; or thirsted and gave Thee drink? When saw we Thee a stranger and took Thee in; or naked and clothed Thee? Or when saw we Thee sick and in prison and came unto Thee?"

All forgotten! But not by the One Who knows and watches and also records all the good deeds you have done. The record you make of the houses and the lands, the plows and the harrows, the horses and the cows will soon fade out and be forgotten, but the inventory kept by those who love you will last as long as eternity lasts!

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No. 4

Master Farmers for 1929

ON this page are brief biographies of the New Jersey Master Farmers. On pages 8 and 9 will be found similar accounts of the Pennsylvania, Maryland and Delaware Master Farmers.

FRANKLIN G. RUE
Monmouth County, New Jersey

FRANKLIN G. RUE farms because he enjoys farm life. Starting from Denison University on an engineering career, he became ill, returned to the home farm and has been farming ever since. Later he married, built a new home across the road from that of his father and began operating on a share basis that 280-acre Monmouth county farm.



Dairy, grain and potatoes provide the income at "Ashurst," the home of the Rues. The herd of 18 milking cows housed in a new modernly equipped milking barn averaged during the past year 10,500 pounds of milk and 330 pounds of butterfat. Alfalfa and sweet clover are two of the factors leading to high milk production on this farm. Mr. Rue plans to increase the size of his dairy and decrease the acreage of grain grown.

An average of 250 bushels of potatoes per acre for the past five years is evidence of Mr. Rue's ability as a potato grower, and this year during an adverse season for New Jersey growers his 37 acres averaged 210 bushels of first-grade potatoes.

Mr. Rue's advantageous location and his use of the motor truck simplify his marketing problems. Potatoes are sold at the farm. The milk goes by truck to one of the seashore resorts. All of the rye and some of the wheat is sold for seed. Hay and straw not needed on the farm are shipped in carload lots.

The much desired extension of central station power brought electricity to "Ashurst" this fall. The Rues were quick to take full advantage of this in their home. The kitchen with its electric range and refrigerator is a woman's modern workshop. A 15-gallon electric water heater was installed in the house for summer use, while at the barn electric motors furnish power for the water system and the milking outfit.

"No one likes to work for nothing," said Mr. Rue as he told how he was teaching his three boys to work as well as play. They are paid for their labor on the farm and encouraged in school and other activities.

Mr. Rue is president of the Monmouth County Board of Agriculture, a member of the Board of Education and an active member of the New Jersey Farm Bureau Federation.

ALFRED SLOAN

Salem County, New Jersey

ALFRED F. SLOAN, Salem county's Master Farmer, is a man well thought of by his neighbors and associates, a leader in community and county organizations, and a farmer who has adopted modern methods in his management of three farms to meet present-day conditions.

Mr. Sloan started to farm in 1905 on a share basis, with but little capital except his enthusiasm and the assistance of his wife. From this humble start, he later bought the farm where he still resides and since that time has brought under one management three additional farms. The most outstanding feature in Mr. Sloan's success has been his ability to manage over 200 acres of farm land with only slightly more labor than he used in operating one farm. By the use of modern machinery, including tractor operated tools and implements, and a well-balanced system of cropping he has been able to

(Continued on page 7.)

he has taken time from his farming to do something for the potato industry. Mr. Ewart was one of the three guiding hands that helped to bring the potato growers and dealers into line last winter which resulted in the adoption of the Farm Bureau potato grading agreement that meant so much to all central New Jersey growers. The work Mr. Ewart put on this grading agreement and his ability to bring into line some of the opposing factions proves that he has the confidence of his neighbors as well as the farmers and business men of the three counties in the Central Jersey potato belt.

The Ewarts have two children. Grace, 19, is married and lives on an adjoining farm, while Warren, aged 15, resides at home and is still in school.

In the Ewart farm are 132 acres, all of which are tillable. It produces about 70 acres of potatoes each year in addition to corn, wheat, rye and some poultry. The Ewart home is very attractively situated with a large lawn and huge trees stretching down to the road. It is being fitted out with electric lights and many other home conveniences this winter.

CHARLES FITTING

Atlantic County, New Jersey

"ONE of the best farmers in this section," said a farmer neighbor of Charles Fitting, Atlantic county, New Jersey. This was made as no expression of praise, but as a mere statement of fact, and clearly typifies the man and his farming methods.



Quality is the keynote on this 70-acre fruit and truck farm. Nearly every year its products are listed among the prize winners at the horticultural shows. About ten years ago nearly the entire farm was in peaches, but Georgia and other southern grown peaches began to seriously affect the market for the New Jersey crop. Peach growing in the Hammonton district became a losing proposition and Mr. Fitting, like many other growers, found it necessary to change his entire system of farming to produce profitably.

Today the peach acreage is greatly reduced, a part replaced by new varieties bred by the New Jersey Experiment Station. A well-kept apple orchard produces many "fancy" packages of apples. Besides peaches and apples, Mr. Fitting grows asparagus, sweet potatoes and tomatoes.

Not only have the peach growers in this sandy-soiled section been losing their market, but recently the Japanese beetle has added a marketing problem for the large quantity of small fruits grown around Hammonton. Diversification by growing more sweet potatoes in this very adaptable soil might aid his community, thought Mr. Fitting when he started a prize sweet potato growing project through his bank this past year. The results have been very encouraging.

Besides operating his farm and taking an interest in community and state affairs, Mr. Fitting occasionally finds time to travel. Recently Mr. and Mrs. Fitting returned from a visit to Bermuda.

JAMES EWART
Middlesex County, New Jersey

JAMES EWART of Middlesex county, New Jersey, proved his right to the title of Master Farmer five years ago, when in the face of low prices for potatoes and at a time when everybody was crying that there was no money in farming



he bought the farm where he resides today. The fact that Mr. Ewart had confidence in the future of agriculture and backed up his judgment with his savings and his confidence has proved the soundness of his judgment and the firmness of the agriculture of New Jersey.

Mr. Ewart started at scratch in 1907 and for 18 years operated on a share basis. During this time he accumulated a modest sum of money and a wealth of experience in growing potatoes and other crops that are adapted to his section of the state. It was about five years ago, that a well known scientist asked Mr. Ewart why he did not buy a farm. That suggestion spurred him to look around and in so doing he picked out the farm where he resides today. He owns that farm. He has been able to pay for it from his white potato crops in four years and we all know that they have not been the most prosperous ones for our farmers.

Mr. Ewart not only has made the farm pay, but

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GOOD WORK RECOGNIZED

READERS who have been interested in the work of Sam Higginbottom at the Allahabad Agricultural Institute will be glad to learn that the trustees of the estate of the late Charles Hall have appropriated \$100,000 for that work. Somebody will always help those who serve faithfully and well.

A MARKET PROBLEM

THE official estimate of the number of cattle on feed in the Corn Belt January first is 99.1 per cent of the number a year earlier. More calves and fewer heavy cattle are in the feed-lots than last winter, and Eastern feeding is considerably less. So far as the prospective supply of beef is concerned the outlook is not bad; but nothing is known of the other side of the problem, the prospective consumption. Can and will the people consume beef so freely as last year?

THE EXTREMES

CROPS failed in a part of China last year. No seeds are planted for coming crops. Stories of famine in which 2,000,000 persons are reported victims of starvation and 2,000,000 more doomed to a like death, with horrible details of misery, bring us abruptly face to face with the trivialities of our misfortunes. How strange to those sufferers must appear a people complaining of the burden of too much food!

SPRING WHEAT ACREAGE

CHAIRMAN LEGGE says that the Federal Farm Board will probably issue a statement to discourage over-planting of spring wheat. Will wheat growers heed the Board's words, or will they count on its action to maintain the price? They may forget its advice and remember that it bid above the market recently for the purpose of keeping the price above its arbitrary loan basis. Growers may likewise remember that the Board was created for the purpose of stabilizing—generally understood as maintaining—prices and may expect it to do so. The area seeded to spring wheat, if weather conditions do not seriously interfere, should indicate whether growers will heed official advice or will be governed by other considerations.

BOTH WRONG

A CONTROVERSY in which both sides are wrong is rather interesting if not quite rare. Such is the argument now going on between the Federal Farm Board and sundry senators about agricultural production. The Board advocates reduction as a means of maintaining prices. The senators advocate in-

creased production, the surpluses to be financed by the Board and exported. The right way is neither of these. It is to leave the matter of production to the collective wisdom of producers, which is greater than the wisdom of a few board members or legislators. No matter how much these may talk, or what they say, the conditions which have influenced production in the past are likely to influence it in the future.

MASTER FARMERS OF 1929

DANIEL BOONE is dead and Davy Crockett reposes in the arms of his ancestors, but the pioneer spirit prevails and even invades our midst. Conditions change; the leather leggings, coonskin cap and trusty flintlock are seen only in museums, while the trappings of the explorer today are more likely to be an airplane, a gas engine or a power spray outfit. The forerunners of a new era are taken as a matter of course, as were the trail blazers of yesterday. We are moved to think of these things when we observe the methods and achievements of the men selected as Master Farmers this year to receive recognition for outstanding merit in their profession. At Trenton last week four New Jersey farmers were presented Master Farmer medals by Pennsylvania Farmer in cooperation with the American Agriculturist. This week at Harrisburg 10 farmers from Pennsylvania and one each from Maryland and Delaware will be honored in like manner. On February fifth three West Virginia farmers will be named and given medals, all these events taking place at the time of the annual farmers' state-wide meetings.

Without exception these Master Farmers are pioneers in some phase of agriculture. They have broken away from the traditions of the past, set their faces toward the future and applied the tools of science with the will for achievement which has characterized the pathfinders of all time. Not alone are these men the pioneers of a new era, since they are but a few of the hundreds nominated by neighbors as worthy of honor. This army is working out the answer to the "agricultural problem"; its members are surveying new territory and by their example are giving us a promise of a better day in farming.

LAST CHANCE!

WHO has not shared the instinct of the migrating birds? When winter comes they spread their wings to leave care and cold behind. While we cannot have their freedom and lack of responsibility, we can in a measure partake of their delight in a change from the rigors of winter. At least such is the plan of several scores of farmers and farm wives who have made reservations for the Florida and Cuba tour which will be conducted by this paper, February 18 to 28. We should be glad to accommodate everybody who would like to take this trip, but since final arrangements for entertainment at many points must be made, and exact number of cars ordered well in advance, we cannot accept requests for space after the last day of this month. "First come, first served"; so if you want to avoid disappointment better mail reservation now, for this is the last chance. See announcement on page 7 for the benefit of those who want to go to Florida only.

A GENERAL STATEMENT

A READER asks us to state "all at once" just what we think about the Federal Farm Board and its policy. That is a big order, too big for a single article, but we may state a few fundamental beliefs with which anybody is at liberty to agree or disagree. It should be understood, first of all, that most of this is not a criticism of the policy of the

Board but a comment on the principles of the law under which it is operating. The Board is not responsible for the law or for anything good or bad in it. Probably most of us would do largely as the Board is trying to do if we were charged, as it is, with the administration of the law. With this preamble let us say:

That we believe in sound cooperation. Likewise we believe that cooperation, like everything else, must ultimately stand on its own feet or fall. We do not believe in subsidizing cooperation with public funds for several reasons, one of them because we foresee a disaster to cooperation when so promoted and subsidized.

We do not believe that cooperation can afford to speculate. We do not believe that any government agency has any moral or legal right to speculate. Yet cooperative agencies are speculating when they extend their operations so that they involve financial risk in members. They are speculating, for instance, when they buy or hold a large volume of grain for the purpose of regulating the price. They are speculating when they advance money on commodities beyond the line of safety. And those who are responsible for such things are speculating, in either case, with property or money which belongs to somebody else.

We do not believe that the Federal Farm Board, or any other public body, should attempt manipulation or control of markets or prices either directly or through any cooperative organization. Yet we have seen in the recent past a conspicuous example of manipulation. And the idea of manipulation or control under the name of "stabilization" or use of "bargaining power" is inherent in the law and in the administration of it. This idea is not so badly stated, but it is there and it is dangerous.

We believe that the quickest and safest corrective of surplus or deficiency in production is the reflection of either in the open market price. Yet the Agricultural Marketing Act provides means to attempt to deprive this corrective of its effect, and the Board must adopt policies with the same intent. If the attempt to abolish the price corrective were temporarily successful surpluses would probably continue and their cumulative effect prove disastrous. All attempts made thus far to regulate production aside from the corrective influence of price penalties or premiums have failed. This one will probably fail too.

We believe that Congress has no moral or constitutional right to appropriate funds to any agency with which to attempt speculation, manipulation or control in the case of any commodity, no matter by what attractive names such movements may be called. And we believe that all such movements, or attempts made as a result of them, will end in damages to agriculture rather than benefits. This, in general terms, is what we believe. Time will tell—it always does.

FROM LIFE

MANY years ago a certain farmer was in trouble. He had bought a good farm without paying much cash, therefore was carrying a heavy mortgage and was without sufficient working capital or credit. He laid his problem before a neighbor, a good farmer and a struggling man to liquidate, pay off his debts and start again as a tenant free from obligations and the worries that go with them. The advice was followed. The farm was sold and other things too, the debts were paid and a new start was made on the very farm he had owned. Without the handicaps of debt and worry the tenant was successful. Years later he bought the farm again, this time to keep. A new start may be better than holding on.

AGRICULTURAL Week

At Trenton opened Tuesday, Jan. 14, with weather dull and foggy, but when Thursday shone clear and cold the increased attendance at the meetings was noticeable. At least 5,000 New Jersey farmers and their wives viewed the exhibits of farm products, the latest farm equipment, and modern household appliances in the Armory during that day. While in general the exhibit was little larger than usual, the potato and corn show was exceptionally good, and some of the new machinery attracted a great deal of attention.

NORMAN FOGG of Salem and Elmer H. Wene of Vineland were elected for four-year terms to the State Board of Agriculture by delegates from state farm organizations, while Willard I. Hamilton of Newark was named to fill the unexpired term of C. Fred Day of Paterson. The re-election of Elmer Wene, who is now president of the State Board, took place on the third ballot after a spirited battle between supporters of Wene and Fred Yahn of Passaic, candidates for four-year terms. Fogg received a majority on the first ballot.

CONTENDING that the Department of Agriculture would become a "political football" if the governor of the state were to appoint a Commissioner of Agriculture to conduct the bureau, the convention voted against a plan urged in the state to substitute the present method of election of the Secretary of Agriculture by the State Board. The delegate asserted that the present method of operation is both efficient and effective.

ARTHUR M. HYDE, Secretary of the United States Department of Agriculture, in his address before the convention in the State House on Wednesday, voiced his opinion on two farm problems which meets the approval of every progressive farmer in the country; his opposition to the continued cultivation of marginal land, and the belief that the time has come when some of the burden of taxation should be shifted from farmers and farm land to others who can more easily carry the load.

"Too rapid expansion of the nation's agricultural industry is responsible for the present unfavorable farm situation," said Secretary Hyde. Farmers were producing more than markets could absorb at profitable prices, and in many instances they glutted their own markets.

Referring to the belief prevalent among some eastern producers that farm relief measures undertaken by the federal government are largely for the benefit of the producing areas of the West and far West, Secretary Hyde explained that the Agricultural Marketing Act proposes "the organization of all farmers of the United States for their mutual benefit."

He failed to say that farmers themselves must first find the need for cooperation and then support that move before it can become sound business and effective.

AID Secretary William B. Duryee, of the State Department of Agriculture, to farmers attending Agricultural Week, "Will the name 'New Jersey' be marked on packages and shipments of farm products signify quality and that quality attained only by adherence along certain lines—or will the name stand for nondescript products that are selling at a discount?"

"Some will say that because of our marketing location we should take advantage of it and market whatever we can grow in the cheapest and most direct manner. It is for us to decide whether we shall market our products as we have largely in the past under such methods, or whether we intend to really face the issue of competition from other states and bring to New Jersey products the public respect that constructive production and marketing methods will secure."

NORMAN WILLIAMS, a 17-year-old Vineland boy, proved to be the champion speller in the state-wide spelling bee sponsored by the New Jersey State Grange. "Supersede" was the downfall of Natalie Haines Pemberton, winner of second honor, after nearly two hours of spelling.

New Jersey Farm Comment

By G. W. HARRIS

Third honor went to Florence Cunningham of Moorestown.

There were 96 contestants, every one a champion of their local Granges, assembled at the Hotel Sterling for luncheon on Thursday as the guests of the State Department of Agriculture. From here they went to the Armory where they battled for spelling honors.

That they were champion spellers was proved at the luncheon when a small tow-haired boy with an extremely serious expression hid behind a pair of large horn-rimmed spectacles tripped up the spelling of John A. Spargo, Assistant Commissioner of Education. (It was Mr. Spargo who conducted the spelling bee.)

"I have never forgotten the word or how to spell the word that spelled me down in a contest one time," Mr. Spargo told the boys and girls.

"That word was 'syzygy,'" he said.

"It is spelled s-y-z-y-g-y."

Frantically, but without avail, a small arm was waved toward Mr. Spargo, but he, evidently not being familiar with schoolroom technique, did not give the boy the floor.

Mr. Spargo's protestor said to me across the table, "He didn't spell that word right. He spelled it —zy, and it should be —gy."

When I went home my dictionary proved that the serious-faced boy was right. Anyway, I maintain that any person, other than a college professor, who can spell syzygy should be called a champion.

WE heartily agree with Theodore F. Gold, president of the Connecticut Holstein-Friesian Association, that every bull is dangerous and that all New Jersey dairymen should have the protection of a fool-proof bull pen.

"Whatever amount a man has to invest in a

herd sire the first portion should be spent in erecting proper facilities for keeping a bull safely. Then the balance can be put into the bull," he said.

THAT the European corn borer will find a congenial home in New Jersey and within three years will be ravaging the corn crop of the state was the prediction of Dr. T. J. Headlee, entomologist at the Experiment Station, to members of the New Jersey Alfalfa Association.

There are more than 175,000 acres devoted to corn in the state which is valued at six and one-half million dollars annually.

MAINTEIN the usual potato acreage in 1930 was advised to potato growers at the meeting of the New Jersey State Potato Association. Since 1925 New Jersey farmers have reduced their acreage in potatoes from 90,000 acres to 50,000 acres, and largely eliminated the marginal land.

The annual value of the crop is placed between \$6,000,000 and \$7,000,000, depending on price fluctuations.

ONE hundred and sixty-two of the 400 members of the New Jersey Dairy Improvement Association were presented with awards of merit on Thursday evening at the largest dairy banquet ever held during Agricultural Week.

These 162 herds, containing 3,749 cows, averaged 300 or more pounds of butterfat during the year. Considered on a state basis the average annual butterfat production for all New Jersey cows is about 230 pounds.

Owners of 32 dairy herds in the state satisfied the state official production test requirements, bringing the total high producing dairy herds to 195 in number.

SOMERSET county, by winning for the third consecutive time, secure permanent possession of the Reading Cup, awarded to the county having the best corn exhibit.

The grand champion award went to William H. Meiers of Cream Ridge. L. G. Wygant of Cream Ridge won the South Jersey sweepstakes, while Smith Brothers of Ringoes captured the North Jersey sweepstakes.

LEMUEL BLACK of Hightstown took sweepstakes prize for the best tub bushel displays of apples in the apple show, while Emmor Roberts of Moorestown was sweepstakes winner in the four-tray exhibit of apples.

JOSEPH JOACHIM of Riverton, with his exhibit of Leghorn baby chicks, won the sweepstakes cup given by the New Jersey Record of Performance Association.

SALEM county won the cup awarded by Governor Larson for the best county exhibit of late-crop Cobblers in the potato show.

MASTER FARMERS FOR 1929

(Continued from page 5.)

operate the 200 odd acres with but one man more than was required 20 years ago on a fifty-acre farm.

With early potatoes, wheat, corn, seed potatoes and poultry he has been able to develop a highly profitable type of farming. At the present time he has about 2,000 bushels of seed potatoes in storage for planting next season.

Mr. and Mrs. Sloan have two sons. Both are greatly interested in farming and take a great deal of pride in helping with the work.

For many years, the Sloan farm has been called the South Jersey white potato experiment station, for on this place Dr. William Martin has placed his largest potato test plots. They have played an important part in the development of the early and second crop potato industries of the state.

In his community, Mr. Sloan is president of the Elmer Exchange Club, a member of the church, the Grange and other organizations. He is a member of the executive committee of the Salem County Board of Agriculture, vice-president of the State Potato Association and a "Big Spud" in 1927 and 1928. The Sloan home has hot water heat and has every convenience for saving work.

Important Announcement

RECENTLY several readers have asked: "Can we go on the Pennsylvania Farmer Southern Tour but stay two extra days in Miami while the rest of the party is making the ocean trip to Cuba?"

Arrangements now have been completed so we may answer, "Yes, those who wish may stay in Miami instead of going to Cuba with the rest of the party."

This makes no change in other plans for the tour. All will travel on the same train and make the same automobile side trips in Florida. All will return north together. At Miami the party will be divided into what we shall call the Florida Section and the Florida-Cuba Section. Those in the Florida-Cuba Section will take a Clyde Line steamship and sail from Miami to Cuba on the evening of February 24, arriving back in Miami on the morning of February 27. Meanwhile those in the Florida Section will spend two extra days of interesting sightseeing in and around Miami. They will live in the Pullman cars which will be parked at a convenient location, so there will be no extra expense for hotel rooms.

Thus the costs and rules applying to the members of the two sections will be as follows:

FLORIDA-CUBA SECTION, complete tour as described in previous issues. Reservations and final payments must be made before February first. Total cost from Harrisburg or Philadelphia to Florida and Cuba and return (excepting only meals for two days in Havana) \$184.50

FLORIDA SECTION, complete tour as described in previous issues, but without trip to Cuba. Reservations and final payments must be made before February eighth. Total cost from Harrisburg or Philadelphia to Miami and return (excepting only meals for two days in Miami) \$142.50

Please Note

All reservations for the Section that goes to Cuba must be received before February first. Members of the Florida Section cannot shift to the Cuba Section after that date.

Other stopovers cannot be arranged at any point in Florida. There will be no hotel expense for those who remain at Miami as they may sleep in the Pullman cars.

The price of \$142.50 for those of the Florida Section covers every necessary expense except meals for two days in Miami, Florida.

The price of \$184.50 for those who make the entire trip as heretofore advertised, including Cuba, covers every necessary expense except meals for two days in Havana, Cuba.

There are enough interesting things around the great city of Miami to keep everybody busy with interesting sightseeing during the two extra days if they decide to forego the short ocean voyage and visit to a foreign country which will be enjoyed by those of the Florida-Cuba Section.

More than enough reservations have been received to assure the success of the Florida-Cuba Section. However, there are still a few spaces available and we shall make every effort to accommodate all who make their reservations and final payments before February 1st.

All reservations are accepted on the understanding that checks will be returned if they arrive after all available accommodations are taken. The tour starts at Philadelphia and Harrisburg on the morning of February 15th. Those who wish may join at Washington, D. C., and will receive a rebate equal to the regular railroad fare north of Washington. Please use the coupon on page 26 for making reservations.

Master Farmers of 1929

GEORGE M. ANTHONY
Berks County, Pa.

GEORGE M. ANTHONY, Berks county's Master Farmer, made his start on the old home farm as the junior member of an unusual father-and-son partnership. The partnership was formed when George returned from the Pennsylvania State College where he had taken a two-year agricultural course. Up to that time the major interest on this old Berks county farm had been a feed mill which was operated in conjunction with the usual farm work. After the return of his son the older Mr. Anthony devoted himself entirely to the mill. The junior partner was given free rein on the farm. His efforts have been so fruitful that he has been able to buy the farm of his father besides acquiring additional acreage needed to carry out his diversified program.

Four large two-story poultry houses and numerous colony houses give the Anthony place the appearance of a highly specialized poultry plant. However, the success of any year's work doesn't depend entirely on chickens. Some fifty acres of potatoes are grown from certified seed; many heads of steers are fattened each winter; a comprehensive program of soil fertility is being followed. Even the poultry business is highly diversified. At the beginning Mr. Anthony installed a small incubator for his own use. Soon the neighbors wanted to buy chicks from his breeding flocks. Now the 50,000-egg incubators are kept busy several months of the year supplying chicks for the home flocks and for the purely local trade; no chicks have ever been shipped.

A new two-story concrete block poultry building, 168 feet long, gives Mr. Anthony a large amount of brooder space which he has utilized to build up a business in pullets. Thus he can market his output as eggs, as day-old chicks or as pullets of any age. Local buyers take all of the hundreds of dozens of eggs that leave the farm each week.

Mr. Anthony cooperates with the county agent whenever he can; he is a Sunday school teacher, an elder in the church and an active member of the school board. He and Mrs. Anthony believe the farm should provide some of the luxuries as well as the necessities of life. Following partial list of the electrical appliances in use in their home: electric dish washer, sweeper, waffle iron, egg cooker, heater, iron, beater, washing machine. They find time for frequent short vacation trips. There are two small children in the family.

C. R. BAUERMASTER
Somerset County, Pa.

FROM school master to Master Farmer in fifteen years is the record established by C. R. Baermaster of Somerset county, Pennsylvania, poultry, potato and dairy specialist. Previous to buying his present farm in 1918 Mr. Baermaster was a farm tenant for four years.

Now he owns 180 acres of fertile Somerset county soil which is growing richer and yielding a comfortable income under the exacting tutelage of this auto-crat of the schoolroom. One hundred and forty acres is under cultivation, the remainder in pasture and woodland, including a maple sugar grove.

In a state of good potato growers Mr. Baermaster ranks with the best, having made the 400-Bushel Club five times in six years. He not only plants certified seed but produces it, and in doing so follows to the letter the latest approved practices of spud production.

Twenty-five Holsteins and Milking Shorthorns contribute the largest single item to the farm income. The herd is tested and accredited free from tuberculosis. A pure-bred Holstein bull is used and the best heifer calves from the registered Holstein cows kept to establish an all pure-bred dairy herd. The average production has increased about 800 pounds of milk in the last five years.

Five hundred and thirty pure-bred Barred Rocks show their care and breeding, for they make a flock of exceptionally fine appearance in type, vitality and uniformity. Special matings with pedigreed stock every few years is elevating the already high standard of the poultry branch on this farm, and production of the flock is increasing favorably.

A hundred acres under cultivation brings the operator face to face with a labor problem. The solution in most places where it has been solved lies in the use of machines. This is the method

which Mr. Baermaster employs, carrying it out in practice as well as in theory, for he is equipped with all labor-saving machinery necessary for operating the farm, not forgetting machines to lighten the household tasks.

The Baermasters have five children ranging from one to eighteen years. The two elder girls have finished or are in high school, while the boys, aged two and five, are potential farmers.

HENRY F. GARBER
Lancaster County, Pa.

FERTILE fields, well tilled and neat; a huge barn that seems to symbolize successful husbandry; an old stone house in a beautiful setting of trees and lawn with a carefully tended flower and vegetable garden nearby. So might be described the typical farm of Pennsylvania's famed Lancaster county. And so might be described the farm of Henry F. Garber, one of that county's two representatives among the Master Farmers of 1929.

Though typical of the best in appearance, Cedar Tree Farm is not typical in some other respects. For example, there is a silo and the usual equipment found on a dairy farm; but for several months in the year no cattle are to be seen. The explanation is to be found in Mr. Garber's belief that winter dairying is most profitable under his particular conditions. Each fall he buys a whole herd of bred-to-milk Wisconsin cows which freshen just after they reach their winter quarters. Before spring they have brought in several fat milk checks and proved their worth to other dairymen who are glad to add this good new blood to their own herds. Thus their over winter owner is free in the summer to devote himself to growing record breaking corn and wheat of finest seed quality. Then there is a young orchard that requires attention, a small acreage of potatoes and sweet corn, a flock of White Leghorns that averages close to 200 eggs per hen, and sometimes some pure-bred Poland-Chinas.

In summer a visitor is likely to find Mrs. Garber out in her flower garden. It recently was designated as one of the very finest farm gardens in the state by an authority who knows about such things. As the years pass and better housekeeping appliances are perfected she can spend more and more time in the open.

All three of the Garber children have taken part in the county corn contests, and the two girls have put up their share of ribbon winning canned goods. The type of corn produced on this farm may be judged from a yield of 3,603 pounds of dry shelled corn on a measured half acre. It weighed 72 pounds to the bushel.

GUY L. HAYMAN
Chester County, Pa.

MOST successful farmers, and all Master Farmers, seem to combine sound business sense with a broad streak of idealism and sometimes a touch of the poetic. Guy L. Hayman of Chester county, Pennsylvania, is no exception. This characteristic was clearly revealed when he was questioned about his work at Northbrook Orchards. "If we are producing better than average fruit," he said, "it is because we are forced to it. We find the only sure profit lies in grades well above the average. Incidentally, we get some joy from the feeling, at the end of the season, that the job has been well done—or done to the best of our ability."

Mr. Hayman's orcharding experience dates from 1912 when his father and the latter's business partner decided to develop an orchard. He was given entire charge of the enterprise. As working manager he chose the site and planted the orchards, making a fruit and poultry farm of what had been a dairy farm. In 1925 he bought the partner's half interest, making it strictly a family undertaking. Management and operation remains entirely in his hands, as it has been from the beginning.

The 100 acres of orchards at Northbrook include 65 acres of bearing apples and 20 acres of bearing peaches. Packing house records showing unusually high percentages of top grades bear evidence of the success of Mr. Hayman's efforts to produce extra quality fruit in quantity.

Northbrook statistics extend to costs of production and have been a great aid in developing a

valuable orchard property at relatively low expense. Here is an example of the way these farm records cut costs; the books showed that the farm horses worked only 30 hours in 1928; result—now Mr. Hayman runs a horseless farm. Similar observations showed that proper care of a large flock of hens was leading to neglect of the spraying program; so the chickens were eliminated. Now better equipment and better organization have simplified spraying and the poultry business is being developed again.

Electricity cooks, refrigerates and does many another chore in the attractive home at Northbrook. Mrs. Hayman is a graduate of Vassar and her husband of Cornell. They have one young son.

HARVEY C. KREITZ
Crawford County, Pa.

TWENTY-TWO years ago, Harvey C. Kreitz, a farm boy, having worked five years in a department store, showed his native common sense by getting married and starting to farm. For 18 years he was a tenant, conducting his affairs in such a way that the occupation of farming looked to him worthy of a life work. He therefore bought the old homestead, previously owned by his wife's father. Here for the last nine years Mr. Kreitz has been applying the multitude of modern practices which go with the successful operation of a farm.

The Kreitz farm of 119 acres is located near Cambridge Springs in Crawford county, Pennsylvania. Sixty-two acres are under cultivation; 57 acres in permanent pasture.

The fertility of the soil is maintained by the application of manure, commercial fertilizers and the use of legume crops. About 15 tons of lime is applied annually. A three-year rotation of clover, corn, oats or wheat, and clover is followed. Rye is used as a winter cover crop. And Mr. Kreitz was a pioneer in alfalfa production in this section. The main money crop on this farm is the milk from a herd of 25 Jerseys. This is retailed by Cambridge Springs, which makes a lot of work and also a lot of money. The herd is tested and free from tuberculosis. Half of the females in the milking herd are now pure-bred and of course the bull which heads the herd is a pure-bred.

In his milk route Mr. Kreitz has found a happy solution of his marketing problem. In addition to milk and cream the product of 150 pure-bred White Leghorns goes direct to the consumer from the milk truck. An acre of potatoes and another acre of cabbage are thus retailed every year.

Mr. and Mrs. Kreitz have three children. The oldest girl is now preparing herself to be a physician. Her sister is studying for a teacher, while the five-year-old son is a real boy who gives early evidence of being a Master Farmer himself some day.

GUY A. LEADER
York County, Pa.

THE history of Guy A. Leader of York county, Pennsylvania, is the story of another country school teacher who turned back to the farm and made a name for himself in agriculture. It was his interest in poultry raising that took him away from the schoolroom. His perseverance in that interest has made him a well known figure in the poultry industry of the East.

Mr. Leader started with a small farm in the rolling hills country just south of York and later bought another place adjoining, which brought his holdings up to 57 acres. The development of his present beautiful, well-kept place has been gradual rather than spectacular. Poultry houses had to be built, fields drained, old buildings repaired and painted, equipment installed then discarded to make room for more modern and more efficient equipment.

The quality ideal is carried to the extreme on Leader Farms. Market eggs are strictly graded and bring top New York prices. The poultry houses are widely scattered because Mr. Leader believes the colony system produces the most hatchable eggs and the strongest chicks. All the houses have electric lights, running water and easily cleaned porcelain drinking fountains. Trap-nest records are kept on all breeding stock. These records reveal not only the number of eggs laid by each hen but also the weight of every egg. All male birds are backed by records exceeding 200

eggs per year. The baby chick business now equals that of producing market eggs and Barred Rock broilers. Two all electric incubators are kept busy during a long season, but nearly all of the eggs required come from the home flocks of Leghorns which total more than 4,000 hens.

Mr. and Mrs. Leader have seven attractive children; all of them old enough are attending school. Mr. Leader's work as head of the Pennsylvania Poultry Association is well known.

ANDREW T. AND JOHN C. McDOWELL
Mercer County, Pa.

SIXTEEN years ago Andrew T. and John C. McDowell, city-bred boys, came with their parents to Mercer county, Pennsylvania, where they bought what was at that time considered the poorest farm in its section of the county. It is now as high in fertility and crop production as any farm in the county, a striking development in a little over a dozen years.

In 1925 the father, R. P. McDowell, died. The boys decided to continue farming together as partners, because, as they put it, "We felt that there was just as good opportunity in agriculture as any other field, provided we would apply ourselves, using the best methods as recommended by our Agricultural Extension Association, State College and our farm papers." There is a good program, but the best thing about it is that the boys stuck to it.

The McDowell Brothers have always been especially active in helping put over extension projects, due to the fact that they have always offered to put on pieces of new work that extension specialists were recommending. They bought the first real potato spraying outfit in the county and have run spraying demonstrations every year for the last eleven years. They have also carried on a number of other demonstrations in connection with hogs, beef cattle and farm crops.

Some of the results of these two young farmers include qualification for the 400-Bushel Potato Club four years in succession, highest yield for potatoes in their county, produced heaviest calf in 1,000-Pound Calf Club in the whole county (wt. 1,127 lbs. at one year of age). They breed and show prize-winning Shorthorn cattle and Poland-China hogs. Potato production is carried out on an extensive scale, 25 acres being grown annually. Certified seed is used and half a ton of 4-8-7 fertilizer applied per acre. The crop is sprayed 14 times, and pays for it by yielding an average of 300 bushels per acre for five years.

CHARLES F. PRESTON
Lancaster County, Pa.

CHARLES F. PRESTON had the benefit of a broad knowledge of Pennsylvania agriculture when he started farming in southern Lancaster county, close to the Chester county line. After completing an agricultural course at the Pennsylvania State College he spent four busy years as county agent in Chester county. A promotion made him assistant state leader of county agents, a position he held two years before he promoted himself, this time back to the old home farm. After working on shares for three years he bought the place from his father in 1922. Potatoes, poultry, milk, mushrooms, seed corn and wheat are the products on which he is building his economic prosperity. His White Leghorn flock has an annual production average of 203 eggs. His program of soil building and spraying has enabled him to qualify for membership in the 400-Bushel Potato Club. Yields of other crops are increasing. A large field too rough for cultivation with modern power machinery is being reforested. It gives Forest Farm its name.

The range of Mr. Preston's activity in local affairs is indicated by a few of the offices he holds or has held recently in organizations working for community betterment: Superintendent of the Oxford Friends' Firstday School, president of the school board, first president of the local Parent-Teachers Association, president of the Guarantors' Association of the Oxford Chautauqua, organizer and past president of Friendly Farmers' Club. He gives his services no less freely to farm organizations, now being vice-president and a director of the Lancaster County Farm Bureau, a director of the Inter-State Milk Producers' Association, of the Little Britain Detective Association and a past director of the Mushroom Growers' Cooperative

Association of Pennsylvania.

Mr. and Mrs. Preston believe that the greatest advantage of rural life is the opportunity it affords for the development of sound bodies and healthy minds in the younger generation. The Preston children, ranging up to high school age, are keen and interested workers on the farm and in junior community affairs. At home each is given certain responsibilities to carry and each receives proper pay for the discharge of certain duties made lighter by modern conveniences. No visitor can doubt the truth of Mr. Preston's assertion that "our home is one of much happiness."

NORMAN E. RISHEL
York County, Pa.

THE world is full of men who have made good in their chosen occupations in town and city after having farmed long enough to learn that the farm wasn't the place for them. The reverse is equally true. We find among the Master Farmers many successful men who spent some years in other lines of work. One of the traits that made these men Master Farmers is the one that prompted them to make a change when they discovered they were in the wrong occupation.

Norman E. Rishel was a school teacher in his old home county of Somerset, Pennsylvania, before he moved with his family to York county. There, following a business college course, he started his brief career in business. Two years in town convinced him that a business of his own out on some York county's beautiful hills was more to be desired than the most successful career in an office. So he settled as a tenant on a farm a few miles north of York, close to the farms of several relatives. A year as a tenant gave him time to locate the place he wanted for himself. In 1920 he took possession. Since then the mortgage has been paid off and the farm has been made one of the most productive and best equipped in the county.

Mr. Rishel has built his enterprise around an exceptionally high producing accredited Holstein herd which he bred from a few good foundation animals. The present annual herd average is 12,500 pounds of milk and 425 pounds of butterfat per cow. Scrupulous cleanliness around the dairy barn enables him to produce milk of very low bacterial count. An electric milk cooling system and ice machine helps maintain the quality. In 1928 this raw milk had the lowest average bacterial count of any entering the city of York.

The children are receiving training in music. Ruth, eleven, won first prize on her cake and cookies at the last State Farm Products Show.

SAMUEL L. SMEDLEY, JR.
Delaware County, Pa.

SAMUEL L. SMEDLEY, Jr., of Delaware county, Pennsylvania, is a specialist in the growing and marketing of apples of finest quality. Practically all the activities on Twin Ash Fruit Farm center around the orcharding business. The production of market lambs is an important side line but the principal reason for sheep raising is to help keep clean the parts of the farm not devoted to orcharding. Mr. Smedley probably has won more prizes on apples at the Pennsylvania State Farm Products Show in recent years than any other individual.

A recent addition to the farm buildings is a model 9,000-bushel storage cellar, the walls of which are surmounted by a modernly equipped fruit packing house. Constant experiments are being conducted at Twin Ash Farm with new tools and new methods of doing things are some of his recent enterprises: Use of heavy subsiding equipment to stop erosion; orchard tests in cooperation with makers of synthetic nitrogen; work in cooperation with state and national agricultural authorities on spraying, problems and the growing of trees grafted on special disease resisting stocks; experiments in girdling fruit trees to bring about early bearing; demonstrations in bridge grafting and in the use of high percentage dynamite in ditch digging.

When Mr. Smedley completed his course in horticulture at the Pennsylvania State College in 1916 he took over the operation of his father's farm on a rental basis. The place had been tenanted before he went to college but with that exception the developments that have made this one of the outstanding fruit farms have been made since Mr. Smedley graduated from Penn State.

Mr. and Mrs. Smedley find time to leave their attractive home for occasional vacation trips and

for participation in various organization enterprises. Mr. Smedley is or recently has been a Sunday school teacher, treasurer of the Delaware County Agricultural Extension Association, president of the Tri-State Farmers' Club and of the Delaware-Chester County Fruit Growers' Association.

JOHN D. REYNOLDS
New Castle County, Delaware

DELAWARE'S Master Farmer for 1929 is a tenant farmer, a share renter. Those terms too often bring up a mental picture of discontented tenants moving every year or two from one rundown farm to another. But no stretch of the imagination can include John D. Reynolds of New Castle County in such a picture. Being an enterprising farmer of the highest type, Mr. Reynolds has been given unusual advantages by his landlord. And it is those advantages that have persuaded him to apply his skill through the years to a farm he does not own.

All but 25 of the 365 acres of this fertile farm are under cultivation. Mr. Reynolds believes in the economy of modern machinery. He has divided the farm into rectangular fields of from 30 to 65 acres each. The farm unites dairying with the large scale production of canner crops. The dairy barn, too, is equipped for efficiency, with a milking machine and a full complement of time savers for the caretakers.

The dairy herd is being built up gradually after a disastrous tuberculosis test several years ago. The 30 cows in the milking herd at present average over 300 pounds of butterfat per year. Considerable poultry is produced as a side line. Thirty acres or more of soy beans are grown as a cover crop, and the farm produces heavy yields of that other favorite legume, alfalfa. Both help enrich the soil for other crops of which the following acreage figures for the last year are typical: 50 acres of sweet corn; 40 of field corn; 75 of wheat; 30 of canning peas; 15 of tomatoes.

Mr. Reynolds has long been one of the outstanding figures in Delaware agriculture. He is president of the Delaware State Farm Bureau and is on the executive committee of the New Castle County Farm Bureau. The one daughter of the Reynolds family, Mary, is a well-known home economics extension specialist of the Pennsylvania State College.

RAY C. NORMAN
Harford County, Maryland

HIDDEN away on a back road in the hills of Harford county, Maryland, is Normandy Farm, a modest appearing place that proves an unfailing inspiration to every one who visits it and talks with its equally modest young owners, Mr. and Mrs. Ray C. Norman. The Normans have been so busy at home during the last few years that they are little known in Maryland outside their community. But the result of their work is famous throughout the United States wherever good stock is known and talked about.

It is not a boast but a simple statement of fact when Mr. Norman says: "If birds from our flocks cannot win in any competition anywhere we get some that can and try to breed better ones." That applies to livestock too. The result of a few years of intensive work on this plan is exactly what one might expect. Animals and birds bred at Normandy Farm are now to be found throughout the whole country east of the Rocky Mountains. In 1929 fifty head of cattle were sold at an average price on all, including calves, of well over \$300. Hundreds of premiums have been won at the most important fairs in the country. The herd of Berkshire swine has won more than \$3000 in prizes on the show circuit in one season.

Mr. Norman returned from the World War as one of the few survivors of a company that spent a year at the hardest part of the Front. Starting without capital he went into debt to buy his farm and start his purebred flocks and herds. Mr. Norman on his letterhead lists only Ayrshire cattle, Berkshire swine, Dorset sheep, Bourbon Red turkeys, Toulouse geese, Muscovy ducks and Jersey Black Giant chickens. But there are several side-lines carried on in the name of Jack, the little son of the family. They include the breeding of Hampshire sheep, Buff Cochins bantams, Hungarian and Carneau pigeons, Ring Neck pheasants and registered bull dogs. Every bird and animal on the place is purebred—except the cat—and nearly every one is of blue ribbon quality.

TOOTS did not look convinced. He dropped the subject, however, and they conversed about his trip and what had happened at Carrbury since his absence. It was on the tip of his tongue more than once to mention the disposal he had made of his two hundred dollars, but the habit of reserve concerning his own affairs, bred by his self-reliant life restrained him.

Nancy had served supper in the ell kitchen and as it happened Toots had never been in that room before. It was not sheathed and plastered like the rest of the house, and the old beams and wood-work made a picturesque, shadowed setting in the lamplight. Toots, always quietly observant, noticed that some of the beams were scored in a peculiar way, but the light was not strong enough to make them decipherable.

"Only some tallies the gunners scratched up in father's time," said Daddy, perceiving his interest. "The old man was a great sportsman. He had spells of takin' in bo'ders—like the Colonel wanted to—but he never made no money by it. Leastwise he never kep' it if he did."

After a little more talk Toots, who was feeling comfortably tired, went to his room with Hector, and in fifteen minutes both of them were sound asleep under the rose-covered roof.

Both the storekeeper Tigert and his new assistant worked hard the following day, lunching as before on some odds and ends of the grocery stock, and by late afternoon, in spite of various interruptions, the store was in pretty good order. The change pleased Tigert, and he was quite taken as well with the way Toots waited on his customers. He actually loosened up to such an extent that he offered his assistant a stogie.

"Don't smoke, eh?" he asked when Toots declined the article. "Well, I don't think any less of you for that." He drew a pipe from his pocket and added: "Neither do I, while doin' business. I fell from a ladder once an' like to of killed myself. I never did get my full wits back for a month, an' then I found my wife had gone to takin' bo'ders. You can't blame her either. Somethin' had to be done while I was lyin' on my back starin' at the fly-specks on the ceiling, but the worst of it was she'd got in a night-watchman an' owin' to his peccoliar hours an' my bein' an invalid an' risin' late we was always together at breakfast."

"Well, sir, that night-watchman stunk so of terbaccer I couldn't eat a mite. Not a mite. He was plumb freighted with the smell of it. I says to myself then an' thar, 'If terbaccer's that disagreeable to me, what must it be to them who don't smoke?' I swore I'd never smoke again while I was waitin' on folks an' I never have."

TOOTS decided that he was always running into people who were a little odd. Tigert was certainly that though his oddity did not noticeably interfere with his business. He was a very persuasive salesman and he had need to be, for his prices were always high and he had been accused more than once of profiteering. Nothing that fell into his hands was ever thrown away. Spoiled or damaged goods he sold to the negroes, or ate himself; broken crates and excelsior he disposed of as kindling, and he drove sharp bargains at regular intervals with the junkman over empty bottles and such odds and ends.

Trade at the store was as brisk as business ever would be in Carrbury. In the first place there was a certain amount of curiosity over the new assistant, who came from "goodness knows where, my dear!" His former association with Colonel Jesse lent him an added interest, for no one had ever disputed the Colonel's right to be considered the principal citizen of the town. In the second place the sudden spic-and-span appearance of the store was a novelty worth inspecting. Whether it would last or not, considering Tigert's well-known lack of method, was a question always worth discussion. A good many of the young ladies developed an unusual readiness to fetch grocery supplies for their mammas. That they found Toots reserved did not seem to lessen their interest. Perhaps the fact that they thought him handsome had something to do with it.

At irregular intervals fishermen and oystertongers from the "fleet" dropped into Carrbury to stock up with provisions and stretch their legs in a shore spree. The great majority were men from farther up or down the coast, sea nomads more or less, whose home was on the water for at least eight months of the year, a rough, tough, lawless lot in the main, always ready for a fight or a carousal if the opportunity offered. Though the eighteenth amendment was supposed to be in full force in Carrbury it was an open secret that the "fleet" bought "hooch" from some source. They were canny enough not to drink it while ashore, or much of it, but once aboard their boats they lost no time in getting uproariously intoxicated, to

A Thinking Job

By Fisher Ames

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Synopsis

Toots Pouche, an orphan boy with no job, spends his last dollar to rescue a dog from a fight with a captive wildcat. The boy secures employment at the Broad View Hotel, a likely place run by a southern gentleman apparently more for love than for money, since it is evidently not a paying proposition. The Colonel dies suddenly after arranging for Toots to have his library. The boy and his dog are now part of the crew on Jack Rose's craft the Stingaree.

As guests of an explorer on an ancient craft, Toots and Rose are shipwrecked but manage to get back to the Stingaree. Toots has just learned that the boat is in her home port and he must look for another job.

the indignation of the decent element of the town.

Toots had no use for the drinking set, but there was something in the robust, two-fisted life of these tide-water workers that had its fascination for him. It was not only romantic and vigorous, there was money to be made at it, if rumor could be believed, and Toots wanted to save enough to buy that education which had been so nearly within his reach on the day of Colonel Jesse's death.

Tigert always waited on the "fleet" crowd himself, notifying Toots in so many words that this was his express desire. Their trade differed from that of the townspeople and Tigert catered to it, keeping a large stock of special commodities for their benefit. Most of this stock Tigert kept stored in a rear room and carried the key to the place in his pocket. He knew what the men wanted and

The Cheerful Plowman



YOU CAN'T CHANGE NATURE

H, I used to cuss the rooster for his crowing in the morn. "It's all right to be a booter," I proclaimed with cutting scorn, "but this tom-foot early crowing when a fellow's in his bed is the bunk, that's easy showing! That old rooster should be dead!"

Oh, I used to scold the porkers for their squealing for their feed; and "Their voices sure are corks, all sopranos gone to seed!" I would groan whenever that chorus sent its music through the air, every pig from Dan to Doris, every porker, dark or fair.

Oh, I used to jaw the guineas for their shrieking and their noise. "They are just a bunch of ninnies, without wisdom, grace, or poise!" I declared in tones emphatic as I called to them to quit, "Yes, I'll lock them in the attic if they throw another fit!"

Oh, I used to rave at ganders for their hisses and their cries, for they roused my dormant danders, put the blood-lust in my eyes. "They could well conserve their hooting!" I opined with earnest zeal, and I talked to them of shooting and of making me a meal.

Oh, I used to speak with vigor to the mule we knew as Dan, for it took the rigid rigor of a special type of man to make him pull a binder, or a hay-rake or a cart, though he was a stem-twist-winder when he did consent to start!

But, I was wasting wishes when I wished for them to change, might just as well place fishes on a western cattle range and expect them there to fatten on the bunch-grass and the sage, or expect the moon to flatten, or a girl to tell her age.

Take nature as you find it! That's the way I'm doing now, and the racket, I don't mind it in the gander and the cow; and the crowing, and the barking, and the shrieking and the hoots, these no longer start me talking, you can bet your leather boots! J. E. T.

what they would accept if a substitute was necessary, and as they were a difficult lot in general his skill in handling of them made the arrangement seem a perfectly natural one.

Tigert happened to be out one day on an errand when a couple of enter-tongers dropped in. They were obviously disappointed at the proprietor's absence and lounged about a time, surreptitiously eyeing Toots but boorishly declining the offer of his services. Growing impatient finally one of them ordered a few stock-canned goods and a ten-pound bag of flour. He objected instantly, however, when Toots lifted the cover of the flour barrel.

"Not that kind, young feller," he said. "Gimme the Red Mill brand."

"Sorry, but that's in the stock-room, and Capt. Tigert's got the key," said Toots. "I reckon there's not much difference anyway. This is good flour and the price of all brands is about the same."

"You ain't paid to spread your opinions none, retorted the tonger. "Yere I come nine mile fer a bag o' Red Mill an' git put off with another brand. What d'you think o' that, Hoke?"

His friend grumbled disgustedly through a ragged mustache and rolled a pair of inflamed eyes around angrily. "Is this yere Capt'n Tigert runnin' er store, or fer Congress?" he inquired of nobody in particular. "Nine o' the driest miles I was wet I ever come. Say, sonny, you put it inter the Capt'n's ear then, when we-all come fer Red Mill flour we want it."

The two tongers departed in this hostile frame of mind. It seemed a good deal of a fuss to make over a brand of flour, but Toots soon forgot the matter in attending to the wants of other customers, of whom Mrs. Ham was one. He had never met her before, but she pleasantly introduced herself with a smiling allusion to their friendship with Jack Rose. Toots instantly decided that he should like her. She was alert and sensible-looking, and rather pretty, with that natural charm of manner that comes from a straight-forward, sympathetic nature.

"You know," she said, "I've always longed to keep store. It seems such a cosy kind of business."

"Nesta!" exclaimed her sister in a shocked voice. "Well, why not? I'm not a person of leisure and goodness knows I have to do things much—"

"If you wish to joke please do so with persons who won't misunderstand you," said Miss Orianda, her fat face reddening.

"I'm sure Mr. Pouche doesn't misunderstand," replied Mrs. Ham smiling. "If another assistant is ever needed I hope he'll remember me, I really have a knack for figures."

"I wish you had a knack for proper pride," retorted Miss Orianda, as she sailed haughtily out.

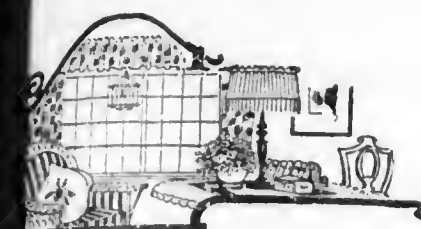
It was the confinement that Toots, used to a very active life outdoors, found the most irksome feature of his work, but he had sense enough not to let that count against it. College students, professional men, the men who had the world's best jobs were, he knew, indoor workers generally speaking. It was the ditch-hands, road-thumpers and day laborers only who could count on eight hours in the open air—and on little else. Toots missed that matter as one of no real importance. The trouble was that after he had got things started and going with a swing they kept on going smoothly, more or less of their own momentum, while he settled down into the role of a mere automaton.

There was some alleviation in studying his customers. Tigert had said: "A man who keeps gets to know human nature right well," and Toots was not long in discovering the truth of this. He learned to distinguish between the people who were niggardly and those who were really hard up, he saw all sorts of little vanities and affectations; and suspicious and generous natures revealed in the light of his work, but he got side-lights into a good many domestic situations, humorous, tragic, or happy.

This habit of observation led him to note the most of the "fleet" crowd were quite as particular to get Red Mill flour as Hoke and his friend had been. He was never allowed to fetch this himself. The stock-room was Tigert's particular province and every sealed bag of Red Mill that came out of it he fetched with his own hands. Tigert kept the books also, but occasionally when a customer disputed some charge item Toots was allowed to consult the entries.

On one such occasion he noticed that every bag of Red Mill entered as sold was marked with a small cross in lead pencil. The fact would not have struck him as peculiar but for the presence of a loose sheet of paper bearing a number of similar crosses, opposite each of which stood a figure. The next time he had to use the books the loose sheet was gone.

(To be continued.)



Old Pewter Useful

By ELLEN S. BRINTON

If you have any old pewter pieces in your cupboards or attic get them down and enjoy them. Pewter is now as popular as silver and new pewter candlesticks, platters and pitchers are on sale in all city stores. New pewter costs about the same as good plated silverware and does not grow shabby with age. Pewter does not break like china, and it does not wear out with ordinary handling. The chief precaution is not to let pewter get too near the fire for it will melt like lead under extreme heat.

Old pewter can be readily brightened by boiling fifteen minutes or longer in a solution of one-half cup of washing soda to a gallon of water. This is the only method by which old tea and coffee pots can be made fit for use again. For final polishing rub with any fine cleaning paste or silver cleaning preparations. Sometimes old pewter becomes badly corroded and then I have found aid in a bit of fine steel wool—rubbing very carefully till the surface is smooth.

Pewter plates may be used under a bowl of flowers on the dining table, under the water pitcher for a cake plate. Be careful about knife marks on the metal is soft and scratches easily. The large pewter serving plates make an excellent foundation for the holiday turkey or they can be used as a tray. Very occasionally we use the big pewter coffee and tea pots for their intended purposes. The various tea set pieces are used for ornament as shown in the accompanying picture.

On the left the sugar bowl is filled with spring flowers—white spirea, pink tulips and dwarf blue aloes.

The stemmed pewter bowl on the right is used to hold a pot of helexine. As this will flourish standing in water and without any direct sunlight it makes an ideal plant for the dining room table. Helexine is a leafy plant often found growing in ornamental green houses. A piece will root readily in damp soil if covered with glass for a week. Very soon the whole pot is a mass of luxuriant green, then trailing down until it spreads on the table. It must have plenty of water. When the top begins to look faded and stale transfer to a larger pot, or else start a new pot with a piece of the old plant. Helexine looks particularly well in a holder of pewter.

The First Rule

MARKET gardeners need no reminder of the value of early prevention and constant preventive work in the growing of vegetables. We have the corn borer added to our other insect pests, the first rule being a thorough cleaning of garden beds must be even more faithfully followed. Every weed, every stalk of corn or stem of plant must be reduced to ashes at the earliest possible date, not in any huge bonfire but with the caution learned from the old maxim: "Better be safe than sorry."

Perhaps many of us do not remember this old saying, heard in an early more often than now. But if industry, protected against every range of weather, must still guard against all possible risks of loss how every disaster of wind and skies, forever on guard. So the shut-in days of January should find us studying seed catalogs and fair days find cleaning the ground of all remains of last year's growth, and safeguarding fences and gates against intruders that threaten the most precious acre of the farm; the source of our supply of fresh vegetables.

Of equal importance is the selection of seeds from old friends among dealers whose seeds we have tested and found true to type. Saving our own seeds is of doubtful economy because few of them have space to keep maturing seeds free from danger of mixing with others of like kind. Especially such plants as tomatoes and Golden Bantam sweet corn, easily the finest sweet corn in the world today. Only as these can be grown at some

The Farm Home



Harriet Hurries

By BETTY BARCLAY

"HURRY up Harriet!" exclaimed Mrs. Purdy. "Jane and Fanny just phoned that they will be here for lunch. Only ten minutes to prepare for them. Harriet merely laughed.

"A ten-minute salad, a cup of tea, some bread and marmalade. . . . it isn't so hard. Why are you so flustered, mother?"

"You don't know Fanny Pyle as I do," remarked Mrs. Purdy grimly. "She watches everything like a hawk, and if things aren't just right, well you hear about them later. Let's hurry."

When the company arrived a few minutes later, Mrs. Purdy greeted them at the door, while Harriet put the last touches on the table.

"We are just sitting down to lunch now, folks," said Mrs. Purdy. "I told Harriet you were coming over, as soon as you telephoned, and she prepared for you too. Let's start our visit over the teacups."

Fanny Pyle's eyes glanced over that table and finding nothing with which she could pick fault turned to Harriet with a smile.

"It's a wonderful little lunch," Harriet flushed, and said, "It's only a simple omelette like mother and I always eat. We call it our balancing meal, you know."

"Yes? I hardly know whether I understand you or not."

Harriet laughed again.

"We eat a good bit of meat and bread in this house," she admitted. "So at lunch, mother and I balance those acid-producers by eating a lot of green vegetables and fresh fruit. Today you are helping us as you nibble on this ten-minute salad."

"It's delicious," admitted Fanny. "Celery and orange, isn't it?"

"And apple," said Harriet. "The apple and celery are cut into such fine bits that it is hard to find the apple sometimes. However, both the celery and the apple are among our favorite alkaline foods, so we use them with the oranges."

"I should say the orange was an acid producer," remarked Fanny.

"By no means," corrected Harriet. "Although many think of the orange as an acid fruit, it really has an alkaline effect when taken into the stomach. In fact it is very strongly alkaline."

Later in the day as the callers left each carried in her handbag a handwritten recipe for the little ten-minute salad that Harriet had gotten together in such a hurry.

You may be interested in trying the same recipe, so here it is:

Ten-Minute Salad

Peel oranges and remove all white skin. Cut into one-fourth inch slices and cut each slice into halves. Dice celery and apple and mix with mayonnaise. Arrange a circle of half-slices of oranges on a lettuce-covered salad plate, fill center with apple and celery mixture and garnish with celery tips.

One-Dish Meal

ECONOMY, efficiency and convenience are all characteristics of the one-dish meal just as they are of the one-piece dress, says Miss Lella C. Ogle, extension specialist in nutrition on the staff of the Ohio State University.

An appetizing and adequate dinner may consist only of a meat and vegetable stew, bread and butter, milk, and a baked custard or fruit dessert. Into the stew go meat, potatoes, carrots, onions and possibly celery.

Another one-dish meal may be based on vegetable soup containing meat, cabbage, carrots, onions, tomatoes and corn. Pot-roast with meat, potatoes, carrots, turnips and whole onions, is another possibility.

A dinner a little more elaborate may consist of meat, potatoes or rice, a green salad, bread and butter, and a dessert, which may be simply fruit and milk.



New uses for old pewterware which can be cleaned by boiling in a washing soda solution.

distance from any other varieties can the seed be kept pure.

The National Canning Contest of last year will in all probability be repeated this coming year and we are glad to promise our readers the detailed method of one who has been canning all kinds of vegetables successfully for years. This will appear in an early issue.

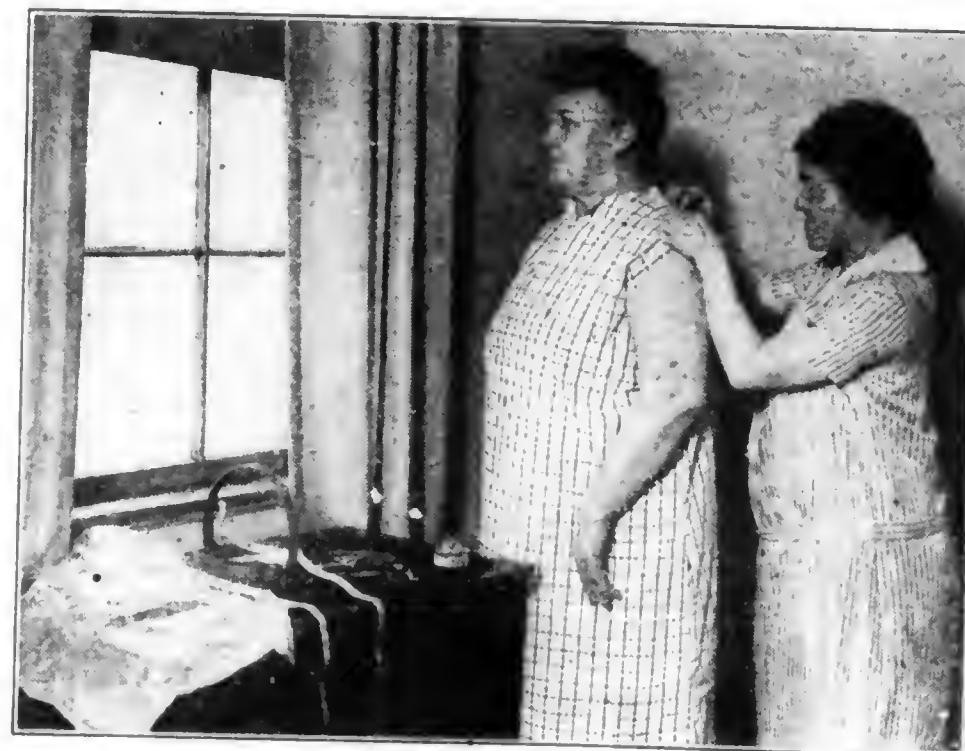
Hepsy Neff.

That Welcoming Word

HAVE you ever stopped to think how much you like to go to some homes, and how you put off going to others? Why is it? Let us stop and think. I enjoy stopping in at Marcia's for a while on Saturday morning, or dropping in to spend an evening. All the girls like to go to Marcia's. In fact it is the most popular of all my friends' homes.

She is glad to see us and she shows it. There is always a note of glad surprise in her voice when she greets me at the door. It is as if she felt I were paying her a delightful compliment to come. She opens the door wide, gives my hand a strong pressure, smiles into my eyes, ushers me in, takes my wraps, and sees me comfortably seated.

Now that I realize how Marcia's charming hospitality begins with her welcoming word, I see how that hearty welcome might well be practiced by any girl who wishes to learn the art of being a perfect hostess. For no matter how kindly you



Country women can be very good neighbors to each other during the busy sewing month of January. The men help fill slots and plant tomatoes—why not the women help each other fit the dresses better?

treat a guest after she is in your home, the effect of true hospitality will be lost without that eager first smile in the eyes of the hostess, that welcoming handshake, that hearty greeting.

Marion Cossitt Brackin.

A light lunch after school of milk, bread and butter, or fresh fruit is desirable for hungry boys and girls.

To remove stains on mattresses cover them with a thick paste of laundry starch and soap jelly, allow it to remain until dry and then brush it off with a whisk broom.

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Nothing More Suitable

No. 126.—Smart Jacket Costume. The smart woman today just can't get along without several jacket costumes. The one illustrated is probably one of the most popular outfits of the season because of its youthfulness and slenderness. It is in flattering yellow-beige and brown wool jersey in knitted weave. The long-waisted bodice of dress just pretends a nippoke belted at raised waistline. The becoming neckline is completed with jaunty bow tie of brown grosgrain ribbon. The jacket is lined with the plain crepe de chine that matches the plain jersey that is used for the collar and rever facing.

Style No. 126 is designed in sizes 16, 18, 20 years, 36, 38, 40 and 42 inches bust measure. Size 36 requires 3 1/2 yards of 39-inch material for jacket and skirt with 4 yards of 39-inch material for blouse and jacket lining.

No. 111.—This style is especially suitable for the larger woman. The belt rests at normal waistline. Hips are extremely snug, with slightly flared fullness at hem, with skirt given a wrapped movement through curved seaming at side-front. It is designed in sizes 36, 38, 40, 42, 44 and 46 inches bust measure. Size 36 requires 4 1/2 yards of 39-inch material with 1/2 yard of 17-inch contrasting and 2 yards of 1-inch ribbon. It is ultra-modish in black suede broadcloth with vestee in eggshell shade of dull blue of crepe satin with bows of the shiny shade. Knitted wool jersey weaves in dark dahlia-purple tones is effective. Black green wool crepe, black canton crepe, midnight blue flat silk crepe and jacquard silk crepe in dark narrow red tones are chic combinations.

No. 121.—Designed in sizes 16, 18, 20 years, 36, 38, 40 and 42 inches bust measure. Size 36 requires 4 1/2 yards of 39-inch material. It's a dress that you can wear all winter long. Black suede broadcloth with vestee of eggshell silk crepe is decidedly chic for street, and general daytime occasions. Feather weight tweed is

well-liked in Spanish red tones. Black canton crepe, dahlia-purple faille silk crepe, plum-shade in canton crepe, rust brown jacquard silk crepe and midnight blue wool crepe are effective combinations.

No. 112.—One-Piece Coat Type. A charming one-piece coat type that rather reflects the ensemble idea in its clever styling, with a separate underdress having straight upper edge. It combines a featherweight tweed in yellow-beige and brown tones with plain brown woolen, and places its belt at raised waistline. Buttons down center-front, hold the garment closely to the figure through waist and hips, with lower part left free to reveal the underdress.

Style No. 112 offers a definite change in straight lines which add to the effect of slenderness. It is designed in sizes 36, 38, 40, 42, 44 and 46 inches bust measure. For the woman of average figure, 2 1/2 yards of 39-inch plain material with 1 1/2 yards of 39-inch contrasting, is sufficient.

No. 108.—Slender Type. Pin inverted tucks narrow the shoulders of collarless neckline. The skirt flares gracefully at sides and at the back. Style No. 108 is a jacquard silk crepe in dark dahlia tones, uses plain crepe in blending tone for rever facing, cuffs and bow at end of V-opening. Bern lace vestee adds chic touch of femininity. It is designed in sizes 36, 38, 40, 42, 44 and 46 inches bust measure. Size 36 requires 3 1/2 yards of 39-inch material with 1/2 yard of 27-inch lace and 1/2 yard of 27-inch contrasting. Black crepe satin is very attractive and wearable with the rever facing, bow, cuff bands and vestee cut from the dull surface. Crepe de chine, suede broadcloth, faille silk crepe, crepe marocain, and sheer velvet are appropriate.

No. 137.—A black lustrous crepe satin with a new smartness all its own. The round neckline is finished with an applied band that extends down left side-front and cuts all in one with front skirt hip, smoothly emphasized by using the dull side

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COLD checked in a day

Get rid of that cold before it gets you. At the first sniffle, sneeze or ache take HILL'S. Gives quick, pleasant, safe relief. Checks cold 3 ways hence in one-third the usual time... 1: Opens bowels, no griping... 2: Checks fever... 3: Tones system, restores pep. Good for young folks and old folks.

Ask any druggist for the red box of HILL'S CASCARA-QUININE

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EAGLE NEST FLOCKS ARE HEAVY LAYERS

Write for New Free Catalog Today

Three quality matings. Tanned and Barren White Leghorns. Barred, White, Buff and Brown Leghorns. Heavy Layers are money makers.

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Navy Brand Concentrated Buttermilk
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28 per cent milk solids, 64 per cent lactic acid, thick as custard with no fat ingredients. Reduces the picking and lessens danger from coccidiosis. Increases egg production and promotes fertility and hatchability. Good for chicks before and after hatching. Sold direct from the factory in barrels of about 45 lbs. Write for price.

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OFFICIALLY BLOOD-TESTED FLOCKS
Under State Supervision

Why buy just ordinary chicks when you can get officially blood-tested chicks that give results at the same price or less. Save money and disappointment by ordering now.

Special discounts for early orders. Catalog Free.

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SUNNYSIDE CHICKS

Box F, HATCHERY, Lewisport, Pa.

SUNNYSIDE CHICKS

Order direct from this ad and obtain the better chicks from heavy laying strains.

Reds and Reds \$14.00 per 100
White and Brown Leghorns 12.00 per 100
Heavy Mixed 11.50 per 100
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Prepaid, live arrival and satisfaction guaranteed. Member International Baby Chick Association.

SUNNYSIDE HATCHERY, Box 1, Liverpool, Pa.

40,000 CHICKS WEEKLY

Hatched from free-range, healthy flocks. Cull and inspected by Mr. Lloyd Baker, graduate of Pennsylvania State College. Reds, Whites, Wyandottes, Giants and Leghorns. Our fair price and reasonable terms enable you to place order now for full season's output. Catalog free.

L. R. WALCK HATCHERIES,
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Get our **CHICK BOOK** FREE

also early order Discount. Write today.

The Old Reliable
LAWSON HATCHERY
Lawson, Pa.

Quality Stock—Sturdy Chicks—Heavy Layers—Turkeys Close-cultured.

BOURBON POULTRY MEDICINE

A few drops daily in drinking water or feed stimulates appetite, aids digestion, clears the intestines of food poisons, builds strength and vitality, puts hens in the condition for heavy egg laying. Small size 60¢, half-pint \$1.00, pint \$1.50.

At your drug store, or sent by mail postpaid.

Bourbon Remedy Co., Box 8, Lexington, Ky.

WENE Blood-Tested CHICKS

RAISE BROILERS from our "Wen-Trook" and "Wen-Trook" cross-bred chicks. Hatcheries every week. Also straight blood, Reds and Wyandottes. Write for prices.

Select and State Supervised S. C. W. Leghorns Super-Matins, January and February deliveries. Send for State List and prices.

WENE CHICK FARMS Dept. B, Vineland, N. J.

BARRON LEGHORNS

Order Early and Save Money

Send your chick order in during January and February if you want to earn a discount on sturdy, strong, White Leghorns of Barron Strain backed by egg production records of merit.

FREE CATALOG—Write for free catalog giving full details. We guarantee arrival of chicks. Years of experience in Leghorn development. Gallon chicks mean more profits for you.

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BETTER BABY CHICKS

Barred Rock, White Rock 25 50 100 500 1,000
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S. C. W. & H. Leghorns 6.25 12.50 25.00 50.00 100.00
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Light Mixed Broilers 2.50 5.00 10.00 20.00 40.00
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Postage paid and full delivery guaranteed. Cat. free. For Order Print. Write Poultry Farm & Hatchery, Hatchery, Pa.

Box F, Port Trevorton, Penna.

Quality Baby Chicks

Barred Rocks, S. C. W. Leghorns, production bred, blood-tested stock. Write for our circular.

Bachelor Bros. Poultry Farm, Grampian, Pa.

CHICKS 5 cents each up to Leghorns, Reds, Whites, Wyandottes, Buffs, etc. Picked birds, 10 cents each. 4 and 12 weeks old. Cockerels and pullets. Live delivery guaranteed. Our 20th year—annual free.

THE PENNA HATCHERY, Box 31, Liverpool, Pa.

CHIX—EGGS Blue Andalusian, Thompson Barred, Black, Hollywood White Leghorn, Hogan-tested egg producers. Thoroughbred.

Selbert's Poultry Farm, Elizabethtown, Pa.

Poultry Problems

World's Poultry Congress

THE governments of 45 countries, including the United States, have accepted the invitation of the British government to participate in the fourth International Exposition of the World's Poultry Congress in London, July 22 to 30, 1930. The Congress is held under the auspices of the World's Poultry Science Association in the Crystal Palace, one of the most noted exhibition buildings in the world.

The United States will be represented by government officials and others designated by the association, and by a national educational exhibit now being prepared by the U. S. Department of Agriculture. The exhibit, for which Congress made available an appropriation of \$25,000 at its last session, will portray the fundamental features of the nation's billion dollar poultry industry, covering the various phases of production marketing, and the consumption of poultry products.

Dr. M. A. Jull, senior poultry husbandman of the U. S. Department of Agriculture, and general chairman of the World's Poultry Congress for the United States, reports that arrangements have been made for an official boat to carry all Canadian and United States delegates. The boat will leave Montreal July 12, and it is expected that several hundred poultrymen from the United States will be aboard. A post-congress tour of England, Scotland and Ireland has been organized by the British government and the World's Poultry Science Association for the visiting delegates.

Further information regarding the Congress or the tour may be obtained by writing Doctor Jull, or H. R. Lewis, president of the National Poultry Council, East Greenwich, Rhode Island.

Houses for Turkeys

Am interested in trying to raise turkeys this spring. Will you tell me something about the houses required by the young poults? G. H. G.

A BROODER house which is satisfactory for the raising of baby chicks will be satisfactory for raising poults. After the poults have reached the age of three or four months they may then be transferred to a permanent building.

This building should be double-boarded on both ends and back, while the front may be entirely open. It is well to construct this building at least 24 feet deep. Turkeys desire to roost high in the air. If droppings boards are used they may be placed in the rear of the house, preferably four feet off the floor. The roosts, of course, can be placed above the droppings boards.

It is imperative, if the poults are given free range, that the brooder house be moved every week or two to fresh ground. Another satisfactory method, however, is to place the house in the center of a four-acre field and give the turkeys four yards each consisting of one acre. The poults are placed in Yard No. 1 for one week and then transferred to Yard No. 2 the second week; during which time Yard No. 1 may be plowed, harrowed, limed and sowed to a green crop. After the turkeys reach Yard No. 4, Yard No. 1 is available for them the following week. H. C. K.

Feeding Ducklings

Will you please give me some advice on the care and feeding of little ducks? Also, when do you pick ducks? Mrs. H. G. McAfee.

THE following recommendation is made by the Missouri State Experiment Station at Mountain Grove, Missouri, relative to the feeding of young ducklings:

There are several good methods of

feeding ducklings. Do not feed until they are at least 36 hours old. For the next three days, feed five times daily. Use a mixture of equal parts by measure of rolled oats and bread crumbs, with three per cent of sharp sand, moistened with water or fed dry.

After three days, this feed is changed to equal parts bread, rolled oats, bran and corn meal with three per cent sand.

After the first week, the feed consists of three parts bran, one part each of low grade flour and corn meal, ten per cent of green feed and five per cent meat scraps with the same percentage of sand. Feed four times daily from the end of the first week until the ducklings are three weeks old and three times daily thereafter. The meat scraps should be increased gradually after the second week until it is about ten per cent when the ducklings are one month old.

As a general rule, the removal of feathers from live ducks is not practiced to any considerable extent. In the case of geese, the feathers are often removed every six weeks during the spring, summer and early fall months. Some people, however, remove the feathers only once in the spring and once in the fall. Geese should, of course, never be plucked during the later fall and winter or during the breeding season. H. C. K.

Bloody Eggs

What is the cause of eggs being bloody? I don't mean just blood spots but entire eggs being so, and is there any remedy for same? C. K. E.

BLOOD clots and bloody eggs are most common in the spring months during the period of heavy production. They are caused by the rupture of a blood vessel in the ovary of the hen. The rupture may be the result of abnormal circumstances as the splitting of the yolk sac in some other part than the suture line or the rupture of a blood vessel extending across this suture line. The blood thus released may remain on the surface of the yolk or appear as a streak or distinct clot. Then, too, it may diffuse through the albumen; in which case the egg is termed bloody.

The albumen of a bloody egg is not used for food but the yolk may be used if desired.

Some people believe that by reducing the amount of animal protein products in the ration, thus causing egg production to decrease, a fewer number of blood spots and bloody eggs are produced.

Goslings Have Fits

Can you please tell me what was the matter with my geese last season? They were all right until they were three weeks old. Then they seemed to get fits. They would throw their heads over their backs and seem to be in pain and died in a few minutes. They were on range. I fed only rolled oats. I want to avoid the trouble this year. E. S.

GOSLINGS as a rule are remarkably free from disease. One of the principal troubles in goslings is diarrhea. This is usually caused by faulty feeding. Too great a quantity of soft feed or the giving of soft feed in too sloppy a condition may cause this trouble. If the ration is lacking in animal protein feeds such as meat scrap and mineral matter, the goslings may appear weak on their legs and throw fits.

It is well, therefore, to supply an ample amount of grit and gravel. In addition, the goslings should be fed a mash consisting of two parts of midlings, one part of corn meal and five per cent of meat scrap. Chopped grass or other green feed is quite essential before the goslings are turned out to pasture. H. C. K.



Truslow Chicks
—the Product of Our 48 Years of Experience in BREEDING

This year our flocks were mated with the best cockerels we could produce, together with the latest ability of eggs, but kills all the coccidia that may adhere to the shell. It is a Red, White Rock and Wyandotte. It is so popular that you must order early to avoid disappointment. Write for our Free Book and state your requirements so we can give you special prices.

We have just discovered a method which will control coccidiosis. This is the result of hundreds of experiments. No milk—no water. In fact, it is a dry feed. Send 10¢ for our special price.

Truslow Poultry Farm, Inc.
Box 1-F, Chestertown, Maryland

5 Lb. Leghorns

The old reliable Heavyweight stock. Produced High Up on Pennsylvania's healthy mountain top. Get your chicks from an older record strain above 300 eggs per hen. Hatched weekly pure white eggs up to 24 ounces per dozen.

Beautiful Color Plate Leghorn Catalogs Free

FARM SERVICE
Route 510, Ztyone, Penn.

STRICKLER'S TANGRED S. C. W. LEGHORN BABY CHICKS

Large size, heavy laying production. Hens weighing 4 to 6 lbs. mated to a good cockerel. Hatched weekly pure white eggs up to 24 ounces per dozen. Extra quality stock. These matings, shipped packed per dozen, 10¢. Live delivery, guaranteed. \$18.00 per 100; \$17.00 per 200; \$16.00 per 500. Also White Rocks and Leghorns. 10¢. Write for Catalog free.

LEONARD F. STRICKLER, Box F, Sheridan, W. Va.

BROILER—RAISERS
SHIPPING CRATES LOANED FREE

SHIP YOUR LIVE BROILERS and other poultry to the oldest live poultry house. We are bonded commission merchants. Returns made daily. Highest prices. Our unlimited. Inquiries about us. Write for prices, rates, laws, shipping instructions. Holders of our. Folder No. 2. KRAKOR POULTRY CO., West Washington Market, New York City.

Kline's Barred Rock Chicks

Healthy stock. Production bred. Egg count records. Strong chicks. None better. 10¢ per 100. Low prices. Write now.

S. W. KLINE, Box 20, Middlebrook, Pa.

COCLAMUS HUSKY CHICKS

Tanned Str. S. C. W. Leghorns, etc. Hatched weekly pure white eggs up to 24 ounces per dozen. Extra quality stock. These matings, shipped packed per dozen, 10¢. Live delivery, guaranteed. \$18.00 per 100; \$17.00 per 200; \$16.00 per 500. Also White Rocks and Leghorns. 10¢. Write for Catalog free.

COCLAMUS POULTRY FARM, Coconino, Ariz.

WANTED—Farm Products

Gibbs, Eggs, Potatoes, etc. Write for prices. **GIBBS & BRO., 321 N. Front St., Philadelphia, Pa.**

Chicks from Blood-Tested Stock

Shipped C. O. D. Free Circular. **Sunnybrook Poultry Farm, New Berlin, Wis.**

DUCKLINGS Large type. Hatched weekly pure white eggs up to 24 ounces per dozen. Extra quality stock. These matings, shipped packed per dozen, 10¢. Live delivery, guaranteed. \$18.00 per 100; \$17.00 per 200; \$16.00 per 500. Also White Rocks and Leghorns. 10¢. Write for Catalog free.

GOLDEN RULE HATCHERY, B. D. Burrell, Burrell, Pa.

SAFETY you saw the advertisement in Penna. Farmer when you are writing to our office.

APPLE TREES

will pay you a better profit if you feed them with Chilean Nitrate of Soda. Makes larger yield the year it is applied. Cuts down loss from "June drop." Stimulates spur growth which means more fruit buds the next year. Keeps trees healthy and resistant to disease.

WHEAT FIELDS

will pay you a better profit if you fertilize them with Chilean Nitrate of Soda. Yield is often increased 15 or more bushels per acre... Better wheat, too, at lower cost per bushel. Makes it grow quickly. Encourages stooling and adds to the protein content of the grain.

FREE Fertilizer Book

Our new 64-page book, "How to Fertilize Your Crops" is just off the press. Free. Ask for Book No. 1, or tear out this ad and mail it with your name and address written on the margin.

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EDUCATIONAL BUREAU



57 William Street, New York, N. Y.
530 Citizens Bank Bldg., Columbus, Ohio

In writing, please refer to Ad. No. 23-D

1830-1930—An even century of fertilizer service to American agriculture.

A New Luxury For Your 1930 Garden

Handfuls of home-grown ox-heart from trial packets report: "The heaviest fruit of them all!" "Numbers weigh 2 to 2½ lbs." "Almost no core!" "Smooth as an apple!" "Most wonderful flavor!"

Livingston's New Tomato GIANT OXHEART

Here at last is a true giant Tomato that attains amazing size and weight without sacrificing form or quality, the result of years of effort on the part of America's foremost Tomato breeders to develop a perfect giant variety.

A single fruit of Livingston's Giant Oxheart Tomato makes a platterful of enormous slices—thick, firm, tender and almost without seeds. Tempting, deep rosy pink in color, truly delicious in its refreshing Tomato flavor. Vigorous and easy to grow and a good producer.

A limited supply of seeds is available for 1930. Order now. Liberal packet size, 50¢ postpaid.

FREE New Complete garden catalog for 1930—shows new varieties of vegetables, flowers and everything needed for the garden. Write for it today.

THE LIVINGSTON SEED CO.
66 East Spring St., Columbus, Ohio

Beat Your Neighbor with OXHEART

IRON AGE

POTATO PLANTERS

Assisted Feed and Automatic Seed Hoppers Interchangeable

Fertilizer Attachments Available for Both High and Low Analysis Fertilizers

Convertible disc covering lands for ridge covering or shallow covering in furrow. Shallow covering increases yield; due to quicker germination, better weed control, and less severity of Rhizoctonia.

Automatic Planter has adjustable pickers—plants small, medium or large seed with the same high degree of accuracy.

Tuber Unit Attachment for Assisted Feed Planters. Write for Free Planter Folder—Today.

FRED. H. BATEMAN COMPANY

636 Chestnut St. Public Ledger Bldg. Philadelphia, Pa.



Two-Row Assisted Feed Planter

Quaker Hill Farm

Certified Pedigreed Field Seeds

We specialize in seeds of improved strains tested and recommended by state experiment stations. Our catalog tells about several new developments and reports recent yield tests. Every progressive farmer should see this. Write now for free copy.

K. C. LIVERMORE, Box P, Honeyey Falls, N. Y.
CORN OATS BARLEY POTATOES CABBAGE BEANS PEAS WHEAT RYE

The Story of Woodbine Farm

CHAPTER IV.

By W. D. ZINN

ONE evening, in the fall of 1867, my father came home from town and said to my brothers and myself: "Mr. Wilson wants a bushel of walnuts. He said he would give one of you boys a brand splinter new greenback dollar if you would bring them down to him." For me that was not a good night to sleep. Every once in a while I awoke and wondered how it would be possible for me to get that dollar.

As I look at it now, I ought to have been wondering how my two brothers and I could get it. One brother was five years older and the other was two years younger than myself. Up to this time the most money I had ever had was a silver quarter given me by mother on my eighth birthday. Not being sleepy I was up next morning before any other member of the family was out of bed.

There was but one bearing walnut tree on the farm. Before it was light enough to pick up the walnuts from the ground, I had made my way to it with two empty bags in my hands. By the time breakfast was announced the two bags of walnuts with their hulls on had been carried to the house by an exceedingly happy 10-year-old boy. After breakfast the walnuts were soon hulled and ready to be put on old Jim. I could not put them on the old family horse myself but my father offered to do it for me and I was soon on the way to town with my precious load.

The First Dollar

Arriving in town I found Mr. Wilson was not at home but at his office, for he was clerk of the court. The old colored woman said, "Bless yus soul, Willie, I takes de walnuts off fur you and den you go up to de office an Massa Wilson's gwine to gib you a brand new dollar." Never did I hear a voice that sounded sweeter. When I reached his office Mr. Wilson was busy waiting on some one who wanted to see some records. My mother had told me never to bother older people when they were busy, so I backed around against the wall and looked about the room in which, so far as I knew, greenback dollars were made.

It seemed that Mr. Wilson would never get through with his visitor, but he finally did and said to me, "Willie, did you bring me the walnuts?" "Yes," said I, "they are down at your house."

"Well," replied Mr. Wilson, "here is a greenback dollar that I just made for you, and he gave it to me. I believed it, for it was crisp and looked as though it had never been handled. I thanked him for it and put it into my pocket. I had no pocketbook, for up to this time I had had no use for one.

Having mounted old Jim, I rode toward home. But the fear that the dollar might slip out of my pocket disturbed me so I took it out and carried it in my hand. Several times on the way home I stopped to read the inscription on that dollar bill. I dreamed dreams, built air castles and bought purely imaginary candies, figs and dates.

A Growing Investment

It was a hard battle I fought on old Jim as I rode home. But before the house came in sight I had won a victory that perhaps meant more to me than any other I ever achieved. In so far as finances are concerned, I made up my mind that I would hold on to that dollar until I could use it to a better advantage than by buying candy with it. On arriving home I gave it to my mother, who locked it up in the bureau drawer.

Not many months elapsed until I began to think that if I left that dollar in the drawer for a whole year

it would not grow any. I believed then, as I do now, that things should grow. Probably the thought of the Biblical character who buried his one talent came to my mind.

I see no reason why I might not have recalled this incident, for before I had arrived at the age of ten my good mother had required at least that I read the New Testament through every year. I began to think after this manner: "If I take that dollar and buy something that is alive it will soon grow into more dollars. What can I buy with one dollar? Chickens are not profitable. Sheep are very low in price. I believe I'll buy a lamb."

Billy Walnut Purchased

Early in the spring the lambs began to drop in my father's flock of ewes. There was among the lambs an outstandingly good one, and I made up my mind to try and buy it. (If in after life I had always practiced buying nothing but good animals, it would have been much better for me). "What will you take for that big eared lamb?" I asked my father one day. "What will you give me?" was his prompt reply. There was a challenge for me to show my business qualifications.

I knew the lamb was worth more than a dollar, but I thought perhaps I would come nearer my father's heart if I offered him less than it was worth, so I said, "I will give you all the money I have."

My father contended for a while that the lamb was worth more money, to which statement I demurred. Finally he said, "Give me your dollar and take the lamb."

I handed the dollar to him with as much pleasure as had been mine when I received it from the hand of Mr. Wilson. I hope I was not selfish when I fed that flock the next winter, but of one thing I am sure, Billy Walnut always had plenty of room at the table. To me it seemed that he grew faster than his mates.

In those days sheep were sold as yearlings. One of our neighbors, James Woodford, came to buy our flock. My father closed the deal with him at \$2.50 per head, but said: "This lamb," pointing to Billy Walnut, "belongs to Willie and you will have to trade with him for it."

Cattle Dealer Now

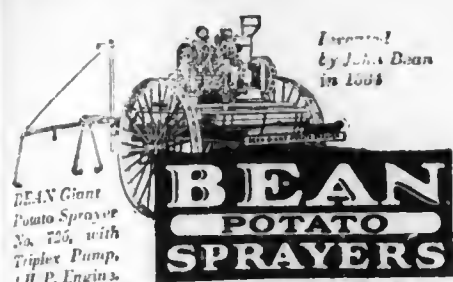
"Well, I will give the same for his lamb," said Mr. Woodford.

"No," I replied, "my lamb is the best one in the flock and I will keep Billy Walnut if you don't give me \$3 for him."

The sheep were being driven toward the road and thinking he was not going to give me the \$3, I made a dash into the flock and was about to seize Billy Walnut when Mr. Woodford called out, "Let him go, I will give you your price."

He meant all the time to give me my price, but he pointed out the defects of my sheep in order to train the boy, as he afterward told my father. Three greenback dollars, all my own! Reasoning as before that these dollars would mean little if not used, I began to inquire about to find some good investment for my money. I heard of a widow five miles away who had a calf three or four weeks old that she wanted to sell. But how could I get the calf home?

I finally conceived the idea that if I could induce my younger brother to go with me, we two could lead the calf home. I suspect I had to point out to my brother the many pleasures we would have in walking that five miles and the fine sport it would be to lead a calf that distance. I must have had quite a time convincing him



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A perfectly balanced low-shafting traction sprayer of big capacity. Maintains even high pressure. Convenient and dependable.

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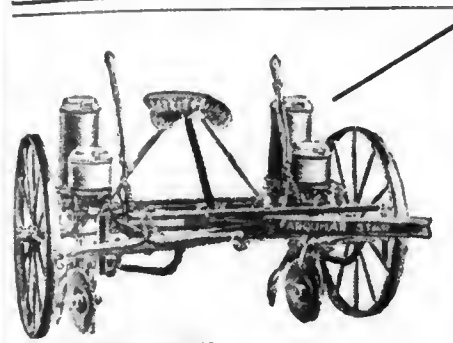
A dependable all-around duster of big capacity, simple design, and dependable operation. Large Adjustable Timken Tapered Roller Bearings throughout.

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In June's Weekly, Big red fruit ripe at early time. Write for free catalog. Regular price 10¢ per pkt. but to introduce June's Quality Seeds will send a pkt. of this Tomato and Cucumber, Carrot, Lettuce, Onion, Bean, Squash, Alfalfa, Garden Peas, Giant Zucchini and Huddled Giant Sweet Peas if you will enclose 10¢ coin to pay postage and handling. A coupon entitling you to 10¢ worth of seed. FREE colored catalog in full of hundreds of seeds, plants and bulbs and is sent free. Many new seeds from F. W. JUNG SEED CO., Inc. 111 N. RANDOLPH, WIS.

that the pleasures of the trip would more than offset the trouble of making the journey. How else could I have got him to go? I had no money to hire him.

On arriving at the widow's I told her our mission. She gladly showed us the calf. It was what I would call an ugly dun, one of the sort that, after more experiences, I would not walk across the road to look at. But it was alive and would drink milk from a bucket. I was highly gratified when the widow said that she would take \$3 for it—just the amount of money I had. When I think of the incident I wonder if Providence did not have something to do with the widow's selling the calf at \$3.

No Veal for Bear

I did not try to buy the calf for less money. The halter was put on and then the fun began, just as I had told my little brother it would. We had quite a time preventing the calf from getting away from us. Nothing of special interest happened on the way home, although I remember that when we passed some wood land we saw a wild bear under a tree. We urged the calf along very rapidly until we got out of sight of the bear. Our mother did not have to rock us to sleep that night. We both went to bed early and slept soundly. My brother may have dreamed about the bear, but I dreamed of calves.

Time soon rolled around and my calf had become a two-year-old steer. My father sold his mates and said he would sell "Dan" if I would let him go. When he was run across the scales it was found that he would bring \$32.50. Long before this I had begun to crave an education. I began to see in this money the nest egg which, when properly hatched, would bring about the desired end.

I might have gone on speculating with this money, but I wanted to make sure of what I had, so I offered to loan this sum to my father, provided he would pay me interest on it, which he agreed to do. In those days there were but few colleges in the country and no high schools. Having passed the age of 16 years I felt that if I was ever to have an education I must begin to obtain it.

In the fall of 1874 a life-long friend, neighbor, classmate and teacher, the late D. W. Shaw, had been hired by three farmers in the eastern part of the county to teach what was then called a "Select School," that is, a school composed of teachers and those preparing to teach. My mother said, "Willie is now 16 years of age. If he is ever to have an education it is time now that he should begin to get it."

A Good Friend

There were three older children in the family, children of my father's first wife, and they had never received any special school advantages. I did not appreciate it then, but I now see how difficult it was for my father to give me a better opportunity for obtaining an education than he had been able to provide for the older children. Another thing that made it still harder was the fact that he did not have the "wherewith" to educate me. We found that it would just about take the proceeds of the note I held against my father to pay my expenses at the school, and I agreed to turn that note over to my father if he would let me go.

At the close of the school a teachers' examination was held at Philippi, the county seat. Mr. Shaw prevailed upon me to take this examination. From the first day of the school until the last, he had tried in every conceivable way to prepare his pupils to pass not only the teachers' examination but every test of whatever character that might be confronted in life. All his life as a teacher, many, many years, was spent in trying to develop manhood and womanhood.

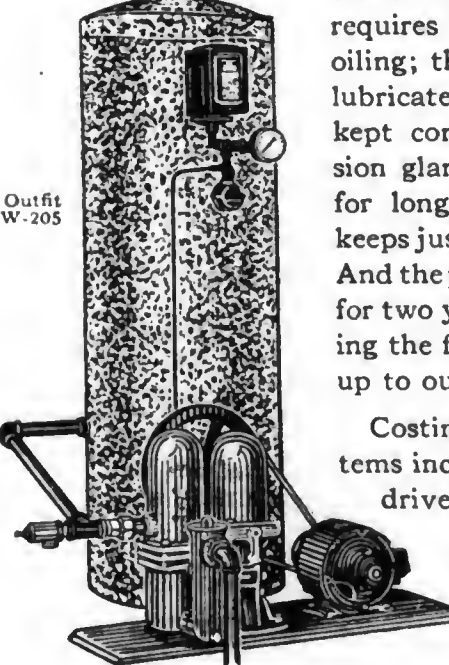


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Famous Line Extended to 12 Sizes and Styles. All Lubricated for Life. All Pumps Guaranteed for Two Years

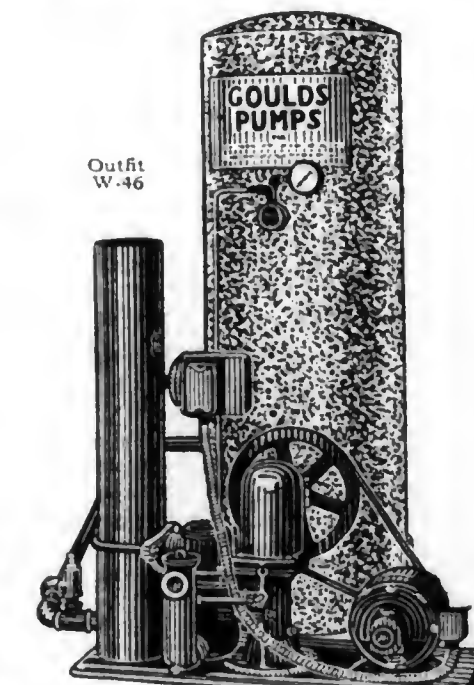
GOULDS Ever-Oiled Water Systems in a range of twelve sizes and styles are now available to meet the water requirements of every farm and home.

These Ever-Oiled water systems are all designed for economical, trouble-free operation. The ball-bearing pump requires no attention; it never even needs oiling; the ball bearings are packed in grease—lubricated for life. The gland packing is kept constantly tight by a new spring-tension gland; all working parts are of bronze—for long life; automatic air-volume control keeps just the right amount of air in the tank. And the pumps are unconditionally guaranteed for two years of satisfactory service. If during the first two years the pump fails to live up to our guarantee we will replace it.



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Complete pressure tank system. Supplied with pressure switch and relief valve and with 42-gallon galvanized-iron tank, and connecting pipe and fittings and automatic air-volume control. It has a capacity of 210 gallons an hour and costs \$104 complete. It is driven by 1/4 h.p. electric motor and is fully automatic in operation.



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Combination fresh water and pressure tank system. Supplies fresh cold drinking water direct from well or spring to faucet. Water for general house supply is taken from storage tank. It has a capacity of 210 gallons an hour and costs \$105. Includes 1/4 h.p. electric motor, A.C. or D.C., 42-gallon galvanized tank, fittings for connecting pump and tank, pressed steel base for pump and motor. Automatic air-volume control, electric pressure switch and all necessary accessories.

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SENECA FALLS, NEW YORK

THE YOUNG PEOPLE

The Eskimo Tragedy

SUGGESTIONS for staging—Footlights, several red-headed girls with paper bags on heads labeled, "Ye footlights," bags to be removed when play begins. Chairs draped with sheets, labeled, "Ye Icebergs," a tall girl at either side of the stage labeled, "Ye Curtain Pole." Two or three girls with frills of colored paper around their necks and frilled paper caps are brought in by the stage manager and seated behind the footlights. Around each is fastened a band of red paper, to represent a flower pot, and each is labeled, "Ye Potted Plant."

Cast—Eskimo, Eskimaid, Fido, the Dog, Eskimurderer, the Rival.

Costumes—Eskimo and Eskimaid in fur coats with fur muffs on the head and on each leg. Fido is represented by a girl, on all fours, covered with a fur rug. On the rug is the sign "Fido." Eskimurderer is dressed much as the Eskimo.

Properties—Fur collars, muffs, etc., to line the grave. Moth balls. Large spice or pepper box.

Someone reads the poem while the acting goes on—

Mid Greenland's polar ice and snow
Where watermelons seldom grow—
It's far too cold up there, you know—
There lived a bold young Eskimo.

Beneath the selfsame iceberg's shade,
In fur of bear and seal arrayed—
Not over cleanly, I'm afraid,
There lived a charming Eskimaid.

Throughout the six-months night they'd
spoon—

O, ye in love, think what a boon!
To stop at ten is far too soon
Beneath the silvery Eskimoon.

The hated rival now we see,
You spy the coming tragedy—
But I can't help it, don't blame me—
An Eskimurderer vile was he.

He spied the fond pair there alone,
He killed them with his axibone.
You see how fierce the tale has grown—
The fond pair died with an Eskimoon.

Two graves were dug deep in the ice
And lined with fur, moth-balls, and spice.
The two were buried in a trice,
Quite safe from all the Eskimice.

Now Fido comes, Alas, too late—
I hope it's not indelicate
These little incidents to state—
The Eskimurderer he ate.

Upon an Eskimo to sup
Was too much for an Eskimup.
He died, His Eskimemory
Is thus kept green in verse by me.

Winter Sports

WHO doesn't like winter and all the good times it brings?

"Oh! Goody!" the boys shout, "it's going to snow."

And then when you wake up in the morning and the ground is covered with white flakes you begin to wonder if your sled runners are still bright and shiny. But, alas, the school bell rings and off you go. My, how good you are all day—but you know it isn't the teacher's scolding taking effect—it's because you don't want to be kept in after school.

Four o'clock in the evening sees a crowd of girls and boys coated and gloved, pulling their sleds up a long hill. At last the top is reached. "Who's going with me?" "I will." "Hurrah!" "Give us a push." And off they all go at top speed.

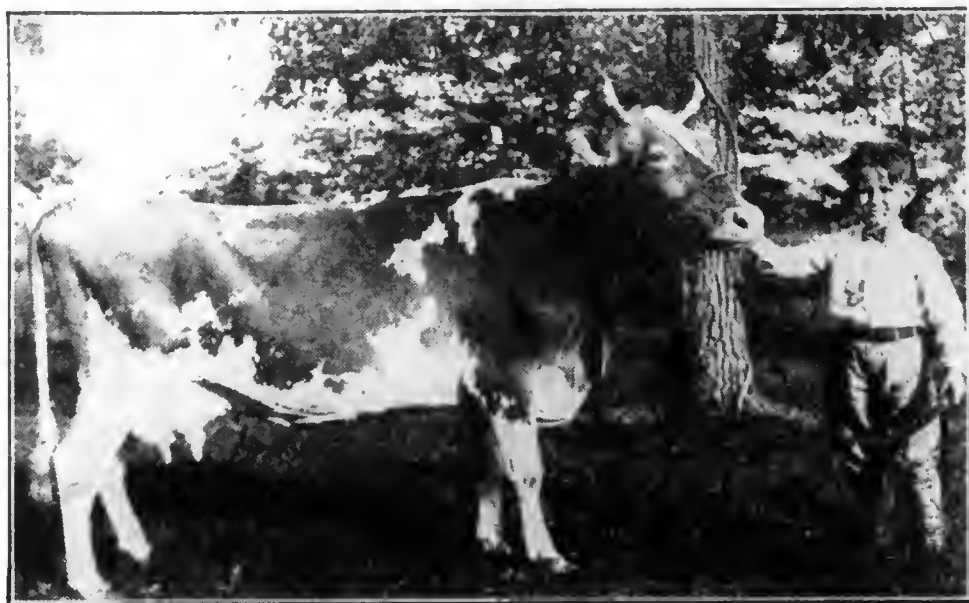
Here's a different track than a sled makes. Yes it's skills. They are skating too. See how they lean forward to go the faster; how smooth they glide. There one hits a hump and dives into the snow, up he comes laughing and starts all over again.

Can you see the skaters on the pond? Notice the clubs they carry; they are playing hockey, backward and forward they go. Here comes a sleigh—packed full and every one singing that old popular song:

Jingle bells, jingle bells,
Jingle all the way,
Oh! What fun, it is to ride
In a one-horse open sleigh.

The sound grows plainer as they near and then gradually dies away into a soft mellow strain.

I have mentioned a few of the



Melvin Hart, Guernsey Calf Club member, Montgomery county, Pennsylvania, winner of cup presented by Quaker Oats Company for best senior animal in the sixth annual round-up.

ARE YOU A GOOD MEMBER?

Next month brings three special days—Valentine Day, Lincoln's and Washington's birthdays. Let's all get busy and send in something special—either drawings or stories to make our page more interesting. There will be prizes for everything published.

Send your letter to Young People's Editor, Pennsylvania Farmer, 7301 Penn Ave., Pittsburgh, Pa.

winter sports I like and if I were asked to tell the one I like best, it would be a hard task indeed.

Barbara E. Shoemaker.
Pennsylvania.

Limerick Winner

Prize line about "Mr. Hen" is credited to Edith V. Carl, Perry county, Pennsylvania. Her line reads—
"Of roast rooster, she's now a loud booster."

Dick Writes About Apples

I AM sending you my answers to the Kate puzzle. My mother helped me with a few questions for I think it was too hard for ordinary kids to solve very easy. I have a lot of puzzles I could send you, if you want me to? Here are a couple to use if you like my kind of puzzles. My schoolmates all call me Dick. I am,

Yours truly,
Richard Stear,
Pennsylvania.

- Varieties of Apples**
1. What was the farmer's name?
 2. Describe his features.
 3. Of what material was his coat made?
 4. What was his disposition when crops failed?
 5. What did he say of his field in the spring?
 6. What did his wife always wear?
 7. Where did his sugar-cured hams come from?
 8. What style did he choose in shoes?
 9. What apple did he like best?
 10. By what measure did he sell his apples?
 11. What did he call the thieves who stole the apples?
 12. What was the name of the husky farm-hand?
 13. What did he hope to be some day?
 14. What were some pretty flowers that grew on his farm?
 15. What did the fellows call his daughter?
 16. What was the name of the city boarder?
 17. What did the city boarder say of the dessert?
 18. What did the farmer's daughter call the hours she spent with her sweet-heart?
 19. Whose compositions did she play most on the piano?
 20. Who did she resemble strongly?
 21. As whom did she regard her father?
 22. Her Dad said she was as proud as....?
 23. What did she say of her father's jokes?
 24. What intoxicating apple was never served to their guests?
 25. Where did the farmer spend his vacation when the harvest was over?
- If you can find apples enough to answer all these questions and send your letter, accompanied by a short story on "The Most Interesting Advertisement in This Week's Paper," you may be lucky enough to win one of the four book prizes offered. Hurry your letter along to Puzzle Editor, Pennsylvania Farmer, 7301 Penn Ave., Pittsburgh, Pa.

Admiral Dewey

NO, this is not the story of a stirring battle at sea, nor the account of bravery of some great man. It is simply the story of my pet, a little black rat-terrier. Born in the midst of a blizzard, he alone of his brothers and sisters survived. He was more than a pet to me—this little dog.

I was six years old at the time he was brought to my home; he was everything to me—companion, playmate and confidant, for my childhood was a lonely one. When I dressed him in some of my old clothes and put him in the cradle, he would lie there like a baby and sleep while I performed

my "household duties" in my attic playroom.

He was pampered and petted by us all, father, mother and me. But was he spoiled? No. His heart beat true with courage, love and perseverance until the day of his death. No task was too great for him. No other dog too large to tackle. He was also the most industrious little rat hunter I have ever seen. He knew many tricks and loved to perform.

How he loved sweets! His ears would shoot up (that is, one would the other always would flop over) and his little brown eyes sparkle with anticipation at the rattle of a paper bag, for his sweets were bought separately. How his little body would quiver and wriggle with excitement and eagerness when the horse was geared to the town, rode half the distance to the town, nine miles away before his presence was discovered.

Then came the day eight years from his birth when his brave little heart could no longer withstand the burdens imposed upon it, and I lost the best companion I had ever had.

Mary Mandrell

Maryland.

Two small girls were playing together one afternoon in the park. "I wonder what time it is?" said one of them at last.

"Well, it can't be four o'clock yet," replied the other with magnificent logic, "because my mother said I was to be home at four—and I'm not!"

A Scotchman sued a baseball company because he was hurt watching a ball game. He fell out of a tree.

Little Folks' Corner



Drawn by ADA L. KREIKLE, Pennsylvania

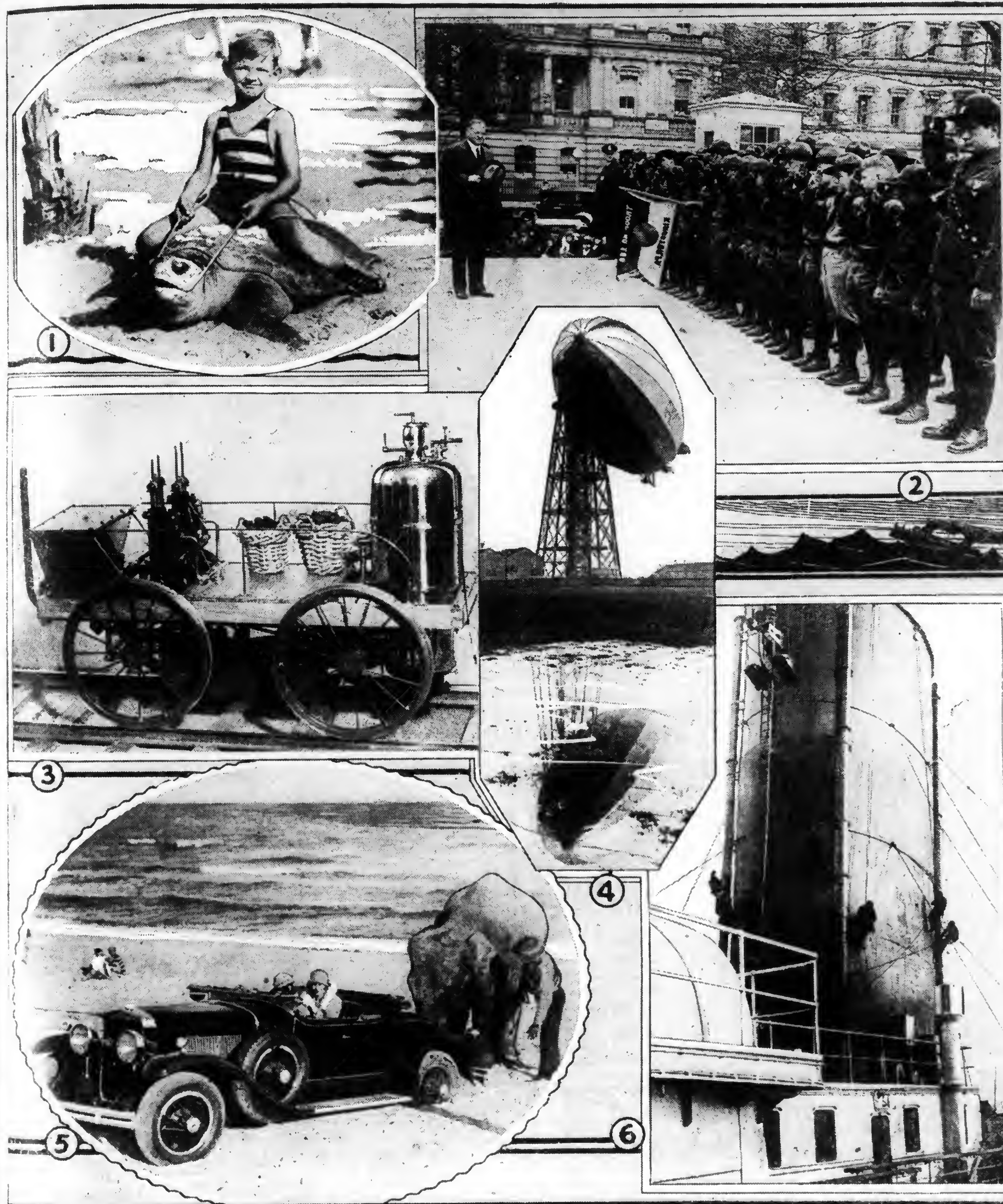
Here are the three Bears on their way to a party, church or somewhere. If Daddy weren't there, Little Bear wouldn't dare stick out his tongue at you but you must excuse him because he's only a baby and doesn't know any better. What a fine chance to use your new crayons or paints! Color the bears and hurry them back to Little Folks' Corner, Pennsylvania Farmer, 7301 Penn Ave., Pittsburgh, Pa. There will be prizes for the best colorings.

Colored by

Address

R.F.D. Age

PASSING EVENTS IN PICTURES



Copyright by Underwood & Underwood

1. Miami Beach, Florida.—Photo shows a contrast to his dad—Tommy Milton, Jr., son of the retired world champion racing driver, riding on a lumbering old 200-pound turtle here.

2. President Hoover reviewing members of Boy Scout Troop Number 166, of Kingsbury, Pa., who came to Washington on a holiday trip financed by the sale of 3,000 pounds of candy, made and sold by members of the Troop.

3. Stockholm, Sweden.—Photo shows model of "The Novelty" designed by the inventor of

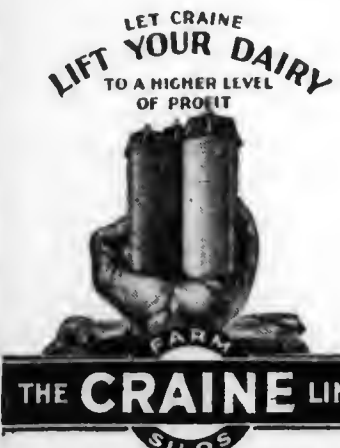
the Monitor. Captain Ericsson entered his engine in competition with Stephenson's "Rocket" and outdistanced his competitor until engine trouble forced the Swede to drop out.

4. Cardington, England. The R-100, Britain's huge new dirigible, is shown here moored to her mast at Cardington after her maiden flight during which she averaged slightly more than 70 miles per hour with a full crew. A detachment of 500 soldiers was required to haul the silvery bag to earth.

5. Miami Beach, Fla.—Photo shows Rosie, pet elephant, giving a lift to a fair motorist whose car got stuck in the sand on the beach here. Rosie is always willing to lend a helping trunk.

6. Southampton, England.—Photo shows an unusual shot of men shipping the funnel on the great Majestic which is in drydock here. They look like flies on a tin can, which gives an indication of the size of the funnel.

SILOS -- Reduced to February 1st only



Because of impassable roads during December making it impossible for us to see all those who asked us to send a representative, the special early season discounts have been extended through January ONLY. Your LAST CHANCE to save an average of \$50 per Silo. Choice of wood stave, triple wall, tile and the NEW Concrete Stave. Don't delay—sit down NOW and write us.

"Send me Catalog and Prices."

CRABE, Inc.
10 Grant St., Norwich, N. Y.

\$25 EXTRA Profit per Cow

A Wisconsin cow testing association found that silage-fed dairy cows gave an extra profit of \$25 each. A Pennsylvania survey proved that cows produce 1,200 lbs. more milk per year, thanks to silage. Experiment station averages show that silage saves 12c on the cost of producing a pound of butter and \$1 on every 100 lbs. of beef.

All things considered, you can produce silage at \$4 a ton. That's a mighty low price to pay for the feed that makes you your biggest profit. A new Papec Ensilage Cutter will put more even-cut ensilage into your silo at a lower cost per ton than any other cutter. That's why there are more Papecs in use than any other make.

Write for the 1930 Cutter Catalog. It gives figures on silo filling costs and tells how they can be reduced.

PAPEC MACHINE COMPANY
778 East Main St. Shortsville, N. Y.
Ensilage Cutters—Ford and Roughage Grinders—Hay Choppers

The TORNADO SILO
Oregon Fir,
Single Stave, Jointed Stave

Furnished when desired, complete with Gambrel Steel Roof and Steel Chute.

THE TORNADO SILO

Keeps silage better, summer or winter, lasts forty years on your farm. Has all latest improvements, best door system, best anchor system.

Write for our SPECIAL EARLY PRICE OFFER.
Buy your silo early at BETTER PRICE.
Good FARMER AGENTS wanted.

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GUERNSEY BULLS, from one to eighteen months, from A. H. sire and dams with records up to 100 lbs. fat. Strong in the blood of Langwater Cavalier, Langwater Stars and Stripes, and Langwater Valiant. Pedigree Accredited and blood tested herd. Write today for sale list with full description. **FRITZLYN FARMS**, Pipersville, Pa.

REG. GUERNSEYS—Ten cows, 8 heifers, open and bred, \$125.00 and up. Bull calves \$60.00 up. Herd rich in Langwater blood. Accredited and blood tested. **A. M. Kennel, R.2, Honey Brook, Pa.**

Holstein Bull Calves and yearling and two-year-old bred heifers. Accredited. **Creola Farm, Inc., Clinton, Pa.**

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14 for MAN or BEAST

Money Back Guarantee
Corona Wool Fat Ointment quickly heals and soothes Cuts, Scalds, Burns or Wounds of any kind. Works like magic on Caked Udders, Sore Teats, also Sore Shoulders, Necks, Barb Wire Cuts, Collar Sores, Scratches. Sold by your druggist with a money back guarantee. Two sizes, 6c and 11.25. Order from us if druggist can't supply. Book of uses Free. Write.

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Registered Jersey Bulls, 8 mos. old, sire, "Midford Noble Majesty" 7 1/2 C. Accredited herd. **C. F. & M. W. Bigam**, Gettysburg, Pa.

Registered Jersey Bull, one year old. Dam's record 337 lbs. butter in one year. Acc. Herd. Write us. **J. M. Main & Son**, Shippensburg, Pa.

Registered Brown Swiss Bull Calves and Yearlings.
ELM GROVE FARM, Elm Grove, W. Va.

AYRSHIRE CATTLE of the best blood lines. Herd T. H. Accredited. Animals of both sex and all ages. **Geo. B. McConnell**, Wellington, Ohio



KEYSTONE AYRSHIRES FOR OHIO STATE

Intent on establishing the foremost college Ayrshire herd in this country, Professor S. M. Salisbury, in charge of dairy production work at the Ohio State University has selected five daughters of Penshurst Charming Prince from Penshurst Farm, Narberth, Pennsylvania, to add to the choicely bred herd at the Buckeye institution. Penshurst Charming Prince is a son of Penshurst Champion Princess, a remarkable individual in the Penshurst herd with six records averaging 10,000 pounds of 4.6 per cent milk. These five daughters of Penshurst Charming Prince are considered the choicest group of heifers that has been brought into Ohio in the past ten years. In addition to the breeding on their sire's side, they are all out of daughters of Penshurst Man O'War.

Farm and Dairy

By L. W. LIGHTY

As a rule it is unwise and unprofitable to cross breeds. True, there are exceptions, but so it is with all rules. In crossing breeds too often we get many of the undesirable qualities of sire and dam, and few of the desirable qualities in the offspring. As the common expression has it, we get nowhere in crossing different breeds of cattle.

Some one has told you the fine breeds of livestock and poultry were originated by cross breeding. That is true in a measure, but the informant did not tell you of the great number of worthless progeny produced before one individual occurred that contributed toward the founding of a new breed. Originating new breeds is a business by itself and the farmer who needs to make a living is foolish to consider it.

But this question more often concerns the crossing of grades rather than pure-breds, and here results are decidedly bad. Any one who has studied this matter has seen thousands of mongrels and scrubs in cattle and swine following this idea of breeding. Yet there are exceptions.

I know a man who keeps three to five cows, but no bull. He depends on bulls kept by larger farmers in the community. He bred a grade Jersey to an excellent registered Jersey bull and raised two heifers, both excellent milkers. Later the only good bull available was a Guernsey, and now this man has three cows of the grade Jersey and Guernsey cross, which are better milkers than he ever had. This, however, was a cross of related types.

Grade Breeding

Thousands of farmers are not in a position to own a registered herd and have no desire to take all the trouble necessary to keep up registration in its details. These people do well to adopt an intelligent line of grade breeding. Select the breed best adapted to your work and conditions and stick to it. In the half-bloods many have to be weeded out, but with the three-quarters there are fewer culls and if your culling has been well done to the thirty-second your stock for utility purposes are not greatly behind the run of pure-breds. A well-selected, registered bull and intelligent culling will bring you a profitable herd.

Soy Beans for Feed

"I have about 65 bushels of soy beans for which I am offered two dollars a bushel. I fed the screenings and found it very good feed. The cattle also readily eat all the chaff and stems. Will it pay me to sell the

beans and buy linseed and cottonseed meal, half and half, for feed at \$65 and \$55 a ton respectively? What is the relative value of these feeds?"

This from a Maryland reader. Possibly the correct answer briefly would be, feed the soy beans.

But what are the relative values?

	Protein	Energy
Soy beans	21.6	\$1.29
Linseed meal	30.9	\$5.12
Cottonseed meal	35.4	\$6.46

We see the soy beans are a little lower in the nutrients than the other feeds. It is also a fact that in feeding trials at experiment stations the soy beans gave as good results as did cottonseed meal.

We also know that whole grains as they grow possess ingredients that are partly or wholly lost in processing. The life element does not lend itself to analysis.

Furthermore, to make the trade proposed there would be the cost of the transaction, which might fully cover the seeming difference as viewed in cold figures.

For these reasons I said that possibly the correct answer is to feed the beans. It would be interesting to compare results right in the farmer's stable, if he is of an inquiring mind, by feeding soy in one ration and cottonseed meal in another. This is a little trouble, but to me the pleasure of knowing first hand was always greater than any trouble. The soy bean is a newcomer since I quit scooping feed to the cows, but it is a crop that is more largely grown every year both for hay and grain and the feeding results justify the increase.

The Ninety and Nine

The greatest Preacher of all time once related a very beautiful and impressive parable of the man with a hundred sheep and losing one. In my day a singer made a hymn about it and we sang it until it became a familiar idea. The value of the minority is magnified by the idea.

I desire to apply the idea from a different viewpoint. A goodly number of us have gone over established facts so often that we come to think the truths in them are universally conceded.

Lately a bright, courteous young man called on me. In the course of our conversation he informed me that he had occasion lately to make a house-to-house canvass over a good part of a neighboring state and was surprised to find communities where there was a strong sentiment against silos. These people believed silage was very injurious to cattle. This belief of theirs went so far as to induce

If you need a silo You Need a UNADILLA

...the strongest, safest, most efficient silo on the market. Because of its perfect, air-tight, water-tight and frost repelling construction, the Unadilla preserves every pound of green corn or other silage put into it. The valuable juices are retained and there is never any risk of mouldy silage.

Send for a copy of big, free catalog. Learn of discounts for cash and early orders. Time payments if wanted.

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UNADILLA SILO COMPANY
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Box 409, Le Roy, New York

Buy now. Pay later

More Money with a ROSSMETAL SILO

Keeps ensilage sweet—no freeze troubles—no shrinkage—no swelling—fire-proof—windproof—easily made higher—lifetime satisfaction. Free book—"Users Own Words" written by 230 satisfied Ross owners.

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ECONOMY SILOS produce perfect silage that fattens beef cattle and makes cows give more milk. **ECONOMY SILOS** are built to last—strong—durable—practical—storm-proof and permanent. Perfect fitting doors. Wool Stave—Glazed Tile—Concrete Stave. Write for free illustrated catalog and special low prices. Address Dept. 51, THE ECONOMY SILO & MFG. CO., Frederick, Md.

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Annual Depreciation Less Than 5%

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HARDER SILO CO., INC.
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I will condition a Horse or a Cow in twelve days

Put flesh on its bones. Give it life and vigor. Can sell 25 percent in less time and value. Satisfaction guaranteed or no pay. Send postal for free offer.

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HELP
for your overworked dairy cows

Try this sane Conditioning Program

Go after 10% More Milk This Winter

C. T. A. Reports

Bedford County

THE Bedford County Cow-Testing Association finished its fifth year December 1st, 1929, with 22 whole-year and four part-year members. There were 482 cows in the Association during all or part of the year.

The results for the Association for the five years are as follows:

Year	Av. No. Cows	Lbs. Milk	Lbs. Fat
1925	301.94	5670	272.2
1926	283.26	6104	305.3
1927	276.29	5801	314.2
1928	298.57	7127	351.08
1929	300.25	7395	332.2

Eighteen herds with an average of five or more cows exceeded an average production of 300 pounds butterfat. A complete list of these herds follows:

Owner	Breed	Lbs. Milk	Lbs. Fat
John E. Morris	R.&G.J.	7797	434.5
McKinley Woy	R.&G.C.	5894	432.4
Stanley Koonitz	R.&G.J.	7813	426.3
Allen Eshelman	R.J.	6958	371.7
Paul B. Stayer	Mixed	7941	367.6
Ross T. Snider	Mixed	9206	359.3
George Morgart	R.&G.J.	7317	359.1
E. S. Perry	R.J.	6510	356.2
Fred Cox	R.J.	7199	353.1
W. D. Koonitz	R.&G.H.	9946	351.7
John S. Hershberger	R.&G.J.	7032	350.7
J. W. Stair	Mixed	9232	319.8
C. E. Koonitz & Son	R.&G.J.	6252	339.2
Carl Garland	R.&G.H.	8253	328.2
S. U. Troutman	G.J.	6830	327.1
S. E. Baker	Mixed	7677	309.0
Sam C. Diehl & Son	Mixed	7599	306.1
Samuel Cessna	R.&G.H.	5522	302.6

Willard Straw, L. R. Mollenauer, Tester. County Agent.

Gelatt—So. Gibson

THE Gelatt-South Gibson Cow-Testing Association finished its third year, December 1, 1929, with 24 whole-year members. In addition there were two members in the Association only part of the year. There were 479 cows in the Association during all or part of the year.

There have been ten herds in this Association for three consecutive years. The following is the result of these ten herds for each year.

Year	Av. No. Cows	Lbs. Milk	Lbs. Fat
1927	136.25	5884	309.8
1928	141.59	5571	300.1
1929	110.11	9201	324.6

Eight herds produced an average of 300 pounds of butterfat. A complete list of these herds follows:

Owner	Breed	Lbs. Milk	Lbs. Fat
Curtis Allen	F.&G.H.	11680	402.5
F. E. Ressegule	R.H.	10621	380.5
E. B. Gillett	R.&G.H.	9916	270.2
S. J. Horton & Son	R.&G.H.	10656	361.1
Paul Hayden	R.&G.H.	10856	360.2
Cordell Allen	G.H.&E.L.	9981	351.0
Arthur Howell	R.H.	9514	337.0
C. E. Pickering	G.H.	9085	308.4

B. E. Whitney, Tester. G. H. Dale, County Agent.

If you permit a barn-full of cows to go through a long period of winter feeding without conditioning aid—you are passing up real money. Very few animals enter the stable in the Fall with the stamina and vigor to get all the milk-values out of the dry winter ration. Digestion and assimilation soon get sluggish—expensive feed goes to waste.

and assimilation enables the cow to thrive and yield to capacity on her natural diet. Feed that costs you real money is conserved and converted without waste.

Condition with KOW-KARE before Calving

For the shock and strain that calls upon every reserve of bodily vigor, each freshening cow should be prepared by a regular period of KOW-KARE conditioning before and after the ordeal. Many troubles that arise only at calving time are effectively avoided if normal vigor is maintained.

KOW-KARE is sold by drug, feed, hardware and general stores—\$1.25 and 65¢ sizes. Directions on each package.

Dairy Association Co., Inc.
Dept. 25, Lyndonville, Vermont

Valuable Cow Book FREE

Authoritative and complete—fitted to the everyday reference needs of the cow owner. Tells how to quickly recognize cow ailments by their symptoms—how to treat them and reduce your loss from disease. Illustrated—and full of general dairy hints and information. Send today for your copy.

STEADILY SURGING FORWARD!

There's no secret behind the amazing forward march of Grange Silo sales the past five years. Dairymen in increasing numbers are learning the truth about "more silo for the money"—about Grange Quality Concrete Stave—"extra tonnage" roof—clear fir—selected hemlock—self-draining joints—non-sticking doors, and other features. Get our **SPECIAL WINTER OFFER TO DAIRYMEN** Get in line for added profits. Learn about our liberal discounts NOW. Know the facts about the silo that's making profit-history for dairymen! Free catalog in colors.

GRANGE SILO COMPANY, RED CREEK, NEW YORK

READ THE ADVERTISEMENTS TO KNOW WHAT IS BEST AND WHERE TO BUY

Farmer's Business Letter

LAMBS worked lower this week. The loss amounted to 65 to 90 cents compared with last week's close, and sheep declined more than lambs. Receipts were about normal for the time of year, a little smaller at twenty points than last week. Average price here at \$13.35 showed a decline of 25 cents compared with last week and was \$2.95 under the same week last year. It is a discouraging time for feeders.

The government issued a depressing report on the extent of feeding, showing a big increase over a year ago. The report stated that the number of sheep and lambs on feed for market in the principal feeding states on January 1, 1930, was about 700,000 head or 15 per cent larger than on January 1, 1929. The number estimated on feed this year was 5,490,000 head compared to the revised estimates of 4,792,000 head January 1, 1929 and 4,463,000 January 1, 1928.

Cattle Lower

With receipts rather liberal buyers were successful in forcing a lower level of prices in the cattle market this week. The steer market generally was off 50 cents to a dollar, yearlings showing the most decline. Butcher stock was also as much as a dollar lower.

Receipts here at about \$10,000 compared with 48,000 a week ago, but seven markets had only a few more cattle than a week ago.

Best steers this week brought \$16, that price being paid for both yearlings and heavies. Last week best heavy steers sold in the same notch, but yearlings brought \$16.75. Average price of steers this week was \$12.85, against \$13.25 last week, \$12.45 the same week last year, and \$13.85 two years ago.

A program to raise about \$100,000 per year to promote beef consumption through the National Live Stock and Meat Board has been adopted by the executive committee of the American National Live Stock Association. This sum is to be raised by a levy of one cent per head on all cattle and calves sold at public markets or at private sale by the members of the American National Live Stock Association. Collection of the fee at the public markets will be made through the offices of the live stock commission firms who sell the cattle and calves for the members of this association. It is declared that this program is a stepping stone toward a much larger appropriation from the members of the American National Live Stock Association in future years.

Hog Position Strong

Hogs worked down a little this week, under the stress of heavy runs on some days, but advanced promptly when supplies let up, and closed in about the same notch as a week ago, with tops worth \$10 and at times a little more. Average price for the week figured at \$9.60, against \$9.65 last week, about half a dollar higher than a year ago. Weight is about normal for time of year, and quality is good. Receipts at eleven markets this week totaled 645,000 against 730,000 the same week last year, and 840,000 two years ago.

Total lard in storage in the United States on Jan. 1 was \$2 million pounds, against a five-year average of 59 million pounds for the same date. Except for Jan. 1 a year ago, and in 1919, it is the largest accumulation for the date on record.

Of pork, the Jan. 1 total was 625 million pounds, against a five-year average of 557 million pounds. With four exceptions it was the largest total for the date on record.

Federal inspected hog slaughter in December was around 700,000 head, or 12 per cent, less than in the same month a year earlier, and so far in January receipts at 11 points have totaled 1,644,000 head, compared with 2,166,000 on the same date last year, a decrease of 24 per cent. These slaughter and receipt figures explain why a bullish feeling prevails with respect to hogs.

Wheat Market Weak

Wheat prices have taken something of a jolt this week, and corn and oats are both closing a little lower, apparently in sympathy with wheat. Early in the week the Farm Board's statement that it would do everything possible to bring about a reduction in spring wheat acreage put a little life in the market, but a severe decline in the

Canadian market had its effect on this side of the boundary later on. A report from Winnipeg said that the only reason that grain men and the public could give for the break in Winnipeg wheat prices was that some of the banks were getting tired of carrying the wheat and were forcing customers to let some of it go. Most of the banks have been carrying west Canada wheat for 18 months. This wheat was bought at \$1.18 and it has cost since then 30 cents a bushel to carry it, while wheat is worth only \$1.20 in Winnipeg today.

Chicago, Jan. 18, 1930 Watson

LIVESTOCK

PITTSBURGH

Cattle

Monday's receipts were light, about 30 carloads being on sale. The market was steady to strong on most grades. Demand was especially good for the better kinds of steers, while some slowness was evident on plain steers and heifers. Several loads of fat heavy steers sold around \$13 with useful butcher steers at \$12.50 to \$12.75 and plainer kinds at \$11.50 to \$12. Few steers had to sell below \$11. Best heifers were strong, a few of choice quality going at \$11 and useful kind at \$10 to \$10.50. Cows were generally easier, most fat cows going at \$7 to \$8, with an occasional choice one up to \$10. Bulk of bulls went at \$8 to \$10, choice heavy individuals selling up to \$11.

Good to best fed steers \$12 25@13 50
Choice steers, 1,200 lbs. or over 12 75@13 25
Good to choice, do. 12 25@12 75
Fair to good, do. 11 75@12 25
Plain heavy steers 11 50@12 00
Choice handy-weight steers 12 75@13 25
Good butcher steers, 1,000 to 1,150 lbs. 12 25@12 50
Fair to good, do. 11 50@12 25
Ordinary to fair, do. 11 00@11 50
Common, do. 10 00@10 50
Good light butcher steers 12 00@12 25
Fair to good light steers 11 50@12 00
Common to medium, do. 11 00@11 50
Inferior light steers 10 00@10 50
Feeders Nominal
Choice fat heifers 10 25@11 00
Good to choice heifers 9 75@10 25
Fair to good heifers 9 00@9 75
Common to fair heifers 8 00@9 00
Choice fat cows 9 00@9 50
Good to choice fat cows 8 00@9 00
Fair to good cows 6 75@8 25
Common to fair cows 5 50@6 50
Canners 5 00@5 50
Fresh cows, calf at side 50 00@150 00
Choice heavy bulls 10 00@10 50
Choice handy butcher bulls 10 25@11 00
Good handy bulls 9 00@10 25
Fair to good bulls 8 00@9 50
Common to fair bulls 8 00@9 00
Inferior bulls 7 50@8 25

Monday's Representative Sales

No.	Wt.	Pr.	No.	Wt.	Pr.	No.	Wt.	Pr.
1	1620	14.50	16	1252	13.10	13	1404	13.00
11	1227	13.00	16	1318	12.75	23	1294	12.75
9	1209	12.75	22	1250	12.50	15	1099	12.50
21	994	12.40	7	1251	12.35	2	1300	12.00
22	1011	12.00	23	1004	12.00	25	951	12.00
4	937	11.40	3	899	11.00	11	809	11.00
4	890	11.00	2	1055	10.00	2	915	10.00

SOUTHERN TOUR RESERVATION COUPON

See Page 7 for Important Tour Announcement

Tour Manager,
Pennsylvania Farmer,
7301 Penn Avenue,
Pittsburgh, Penna.

Enclosed find deposit of \$20 per person for reservations on the Pennsylvania Farmer Southern Tour. (Please check which section you wish to join.)

() I wish to join the Florida Section and shall mail balance, or \$122.50 per person, before February 8, 1930.

() I wish to join the Florida-Cuba Section and shall mail balance, or \$164.50 per person before February 1, 1930.

I shall join the tour at (mark X) Harrisburg () Philadelphia () Washington, D. C. ()

Name.....

Address.....

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FEED MARKET

The following quotations are for transit and nearby shipment January 17, according to the U. S. Bureau of Agricultural Economics. They show the approximate cost of feed per ton (all in 100-lb. sacks) and grain per bushel in carlots arrival draft basis delivered on track at Philadelphia and Scranton rate points:

Barley, \$35.50@37.50; standard middlings, \$35.50; flour middlings, \$36; cottonseed meal, 43 per cent, \$47.50; gluten feed, \$42.50; No. 2 white oats, 55c; No. 2 yellow corn, \$1.04.

HAY AND STRAW

Philadelphia quotations.—No. 2 timothy, \$18.50; No. 3 timothy, \$15.50; sample hay, \$13; No. 1 mixed clover, \$18; No. 2 mixed clover, \$15.50.

No. 1 straight rye, \$18.

CHICAGO

Chicago, Jan. 20.—Eleven thousand head made up the supply. The market was a quarter higher with top at \$16.

Fifty-five thousand head, including 30,000 shipped direct to packers, made up the hog receipts. The market was 25¢ to 40¢ higher with top at \$10.65. Bulk of sales was at \$9.70 to \$10.40.

With 15,000 sheep and lambs on sale the market was steady to 25¢ higher. Best lambs brought \$14.25.

Philadelphia Produce Quotations

PHILADELPHIA

Butter.—Higher than extras, 37¢@40¢; 50 score, 38½¢.

Eggs.—Extra firsts, 47½¢; firsts, 44½¢; seconds, 41¢@43¢.

Poultry.—Live, fowls, 22¢@31¢; chickens, 22¢@27¢; old roosters, 22¢@23¢; pigeons, pr. 28¢@35¢; ducks, 18¢@25¢; turkeys, 25¢@33¢.

POTATOES, Pa., 100-lb. sack, \$2.75@3.00; SWEET POTATOES, N. J., 4 basket, 90¢@1.00; MUSHROOMS, Pa. & Del. 3-lb. baskets, white, 90¢@1.00; PARSNIPS, Pa. — N. J., 5¢@6¢.

Vegetables.—BEANS, Fla., bu. green flat, \$2.50@3.50; BEETS, N. J. & Pa., ½ bkt., 25¢@50¢; CARROTS, N. J. & Pa., ½ bkt., 25¢@50¢; CELERY, N. J. & Pa., per bunch, 12¢@15¢; POTATOES, Pa., 100-lb. sack, \$2.75@3.00; SWEET POTATOES, N. J., 4 basket, 90¢@1.00; MUSHROOMS, Pa. & Del. 3-lb. baskets, white, 90¢@1.00; PARSNIPS, Pa. — N. J., 5¢@6¢.

LANCASTER

Butter.—Country butter, 54¢@60¢; creamery butter, 49¢@55¢.

Eggs.—Fresh, 45¢@50¢; pullet eggs, 40¢@43¢.

Dressed poultry.—Chickens, 31¢@32¢; ducks, 15¢@20¢; turkeys, 25¢@30¢; geese, 15¢@20¢; squabs, 25¢@30¢ each.

Fruits.—APPLES, N. J., 20¢@30¢ ¼ pk. CRANBERRIES, 20¢@25¢ per lb.

Vegetables.—BEANS, (string), 30¢@35¢; peas, 30¢@35¢; Lima, 35¢@40¢; pea box BEETS, 8¢@10¢ bunch. BRUSSELS SPROUTS, 25¢@30¢ qt. CABBAGE, 8¢@15¢ head. CARROTS, 8¢@10¢ bunch. CAULIFLOWER, 20¢@25¢ each. CELERY, 10¢@20¢ bunch. CUCUMBERS, 8¢@15¢ each. EGGS PLANTS, 20¢@30¢ each. ENDIVE, 5¢@10¢ head. LETTUCE, 10¢@20¢ head. MUSHROOMS, 25¢@30¢ per pt. green. ONIONS, 2¢@25¢ ¼ pk. POTATOES, (green), 10¢ bunch. POTATOES (sweet), 25¢@30¢ ¼ pk. PEPPERS, 3¢@5¢ each. PARSLEY, 2¢@5¢ bunch. PEAS, 30¢@35¢ ¼ pk. RADISHES, 1¢ bunch. RHUBARB, 10¢@15¢ bunch. SPINACH, 12¢@15¢ ¼ pk. TOMATOES, 25¢@30¢ pint box. TURNIPS, 15¢ ¼ pk.

With 125 calves on sale the market was steady. Top yearlings sold at \$17.50 per cwt. Good steers \$12 25@13 00
Medium to good \$12 25@13 00
Common to medium \$9 50@11 50
Good to choice heifers \$7 50@9 50
Common \$7 50@9 50
Good to choice cows \$7 50@9 50
Common and medium \$7 50@9 50
Cutter, common and medium \$7 50@9 50
Feeder and stocker cattle \$7 00@11 75
Good to choice calves \$15 00@17 50

NEW YORK

Butter.—Creamery, higher than extras, 35½¢@36¢; firsts, 31¢@34½¢; seconds, 2¢@30¢.

Eggs.—White, nearby, average extra 41¢@43½¢; extra firsts, 43¢@43½¢.

Poultry.—Live, by freight, fowls, 20¢@22¢; old roosters, 17¢; geese, 20¢; ducks, fancy 22¢.

WOOL MARKET

Boston, Jan. 18.—The wool market has been rather slow during the past week says the U. S. Department of Agriculture Market News Service. Most of the trading was done on the 64s and finer western grown wools and on the medium grade fleeces. Quotations were easier on the domestic wools of 58c, 60c and qualities below because of the easing tendency abroad on wools of equivalent qualities.

Scattered sales of small quantities of 66s and 48c, 50s both were quoted at \$9.40¢ in the grease. An occasional lot of strictly combing 64s and finer Ohio and similar wools lined at 34¢@35¢, in the grease. Other lines of fleeces were quiet.

CHICAGO CASH GRAIN

Chicago, Ill., Jan. 20, 1930.—The following cash prices ruled here today: No. 1 hard wheat, \$1.21@1.22½; No. 3 yellow corn, 85½¢@86¢; No. 3 mixed corn, 81¢; No. 1 white oats, 45½¢@46½¢; No. 2 rye, 95¢.

Philadelphia Produce Review

THE Philadelphia egg market during the past week has been largely based on sentiment and was influenced to a large extent by advices of weather conditions, present and expected, in the various producing sections. The market opened about steady but eased off somewhat toward the middle of the week in line with other large distributing points. At the close some of this loss was regained and the market ruled steady.

Nearly receipts, especially whites, appear to be running considerably heavier. Some outlets are filled at present with shipments of Pacific Coast white eggs which have been brought from New York City. Nearby white eggs ranged from 42½¢@46½¢ late in the week while brown eggs brought 38¢@48¢.

Poultry About Steady

Live fowl were quiet in New York with little change in prices. Chickens were firm despite the fact that many offerings were of rather poor quality. Pullets were in good demand and capons sold readily. Receipts of nearby live broilers were lighter and the market improved. Colored fowl were quoted at 31¢@32¢ per pound. Leghorn fowl at 29¢@30¢, chickens at 24¢@26¢ and broilers at 25¢@31¢.

Potatoes Higher

Cold weather in many sections of the country influenced potato markets and prices were generally higher. The demand at shipping points was generally good. Late in the week there was some decline at eastern shipping points due to light demand. Carlot shipments continue at the larger volume prevailing since the price advance, but supplies in the city markets have not shown any material increase. It appears that there has been some buying for future requirements.

Growers in western New York were receiving \$1.25@1.35 per bushel at loading points in mid-January. The growers are still holding their potatoes strongly and dealers in the Rochester

district have had some difficulty in filling their orders at times. Holders of potatoes in most all sections have shown a tendency to stop selling whenever the prices have fallen off a little. The potato acreage of 45,000 acres in Florida and Southern Texas compared with 32,500 last year indicates considerable competition with northern potatoes near the end of the season.

Demand for Apples Limited

The demand for apples in practically all eastern markets was limited although prices have made no material change for a month. Supplies were moderate to fairly liberal. Daily shipments of apples were heavy for mid-winter, often reaching 225 to 250 carloads. The apple movement from the Pacific Northwest was especially active for this time of year. Pennsylvania, New Jersey and Delaware apples were in moderate supply in Philadelphia. Truck receipts of Stayman brought \$1.50@2.50 per bushel, Grimes Golden \$1.50@2, Rome \$1.50@2.25 and Yorks \$1.40@1.75.

The sweet potato market showed some improvement early in the week but the demand fell off toward the close. New Jersey Yellow sweets sold at 75¢@1 per ½ basket in Philadelphia with a few fancy at \$1.10. Similar stock brought \$1.25@2.25 per bushel in New York City. Pennsylvania celery showed a weaker tendency this week and wired bunches sold at somewhat lower prices. The market for this homegrown stock may have been affected to some extent by the liberal supply of California and Florida stock which is selling at rather low prices.

W. R. W.

Farm Conditions

Wirt Co., N. W. W. Va.

Jan. 13: Weather warm and rainy. We have had very little cold weather since the forepart of December.

Many have quit selling cream and are making butter. Cream 36¢, butter 50¢, eggs 40¢, calves \$14, cows \$100@150. Lots of sickness. Roads getting bad. E. N. B.

Mifflin Co., Central Pa.

Jan. 15: Weather mostly warm and cloudy with frequent showers, which makes roads almost impassable. Some few farmers tried plowing the last few weeks, but the ground is too wet. Quite a number of men out of work since the railroad has laid them off for the winter. The milk business is booming for the farmers. Not much stock fed except cows. Hog feeding is dull on account of high cost of feed and dull sale of pork. J. H. Byler.

Frederick Co., Northern Md.

Jan. 8: Weather has been very mild. Grass and grain looking good. Farmers are busy cutting wood and butchering. Also many are putting in the improved milk troughs and milk coolers recently required by the Baltimore Department of Health. Roy J. Wivell.

Harrison Co., Central W. Va.

Jan. 12: The weather is changeable, rain every other day. Today is warm and cloudy. Snow and cold on Thanksgiving. December 23rd snow was 14 inches deep. Dirt roads very bad. Lots of sickness. Horses and cows high and scarce. Live chickens selling slowly at 18¢, butter 40¢, eggs 45¢. Genevieve Morris.

Butler Co., S. W. Pa.

Jan. 4: We had several snow falls during December which did not remain long. Farmers butchering, hauling manure, ordering spring seeds, fruit trees and fertilizer. Winter wheat and rye looking good. Work slack. Egg production increasing, price steady. Dairymen having cattle tested for tuberculosis. Farm Bureau planning year's work. Many farmers to attend State Farm Products Show at Harrisburg. Howard F. Fox.

FARMSALE

REMEMBER!
Spring Is "Just Around The Corner"
BUY THAT FARM YOU HAVE BEEN DREAMING OF NOW

Be Established on Your OWN Farm In Plenty of Time for Spring Planting.

The Federal Land Bank of Baltimore is offering a few farms at attractive prices and on attractive terms. The farms are those that it has been necessary for the Bank to take over through foreclosure proceedings, and therefore the Bank is only interested in realizing from the sale the amount due on the mortgage debt. Consequently, you can be assured of wonderful values.

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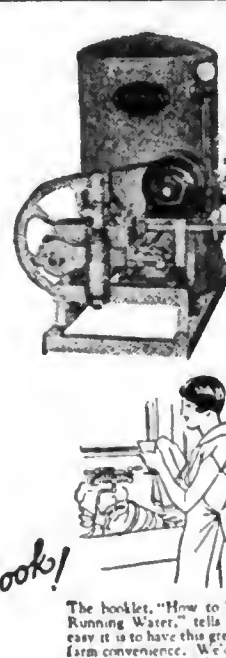
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Free Book!

—also builders of the Famous Star Windmill—



The booklet, "How to Have Running Water," tells how easy it is to have this greatest farm convenience. We'd like to send it to you without obligation. Write today.

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READER, SHAKE HANDS WITH AL ACRES YOUTHFUL INVENTOR AND SCIENTIFIC FARMER, ONE OF HIS DISCOVERIES BEING "AL'S HIGH POWER PLANT FOOD" WHICH IS GUARANTEED TO PUT COBS ON CORN STALKS OVER NIGHT!

MAW AND PAW ACRES, THE ONE WITH THE PIE IS MAW! SHE PUTS MORE FILLING IN A PIE THAN ANY OTHER WOMAN IN SEVEN COUNTIES!

AND THIS, GENTLE READER, IS SLIM, THE ACRES HIRED MAN. HARD AT WORK! HE HASN'T BEEN THE SAME SINCE HE WON THE HANDSOMEST HIRED MAN CONTEST AT THE STATE FAIR.

ONE OF AL'S STARTLING INVENTIONS THE TIN COW SHE GIVES SYNTHETIC MILK, SEPARATES HER OWN CREAM AND BY DANCING A JAZZY JIG, CHURNS HER OWN BUTTER!

ANOTHER OF AL'S INVENTIONS, TIN HENRY, THE MECHANICAL HIRED MAN, HE IS THERE WITH EVERYTHING BUT BRAINS—CAMERA!

By Leet



The Modern Farmer Won't Be Fooled

Whenever he can save money on freight charges, save time and money on hauling materials from railroad station to farm, he does it. That's the big job of the farmer—make every crop cost less to raise.

No better place to start saving than with fertilizer. Dempwolfs' HIGH TEST (Double 4-8-7) fertilizer will save every farmer from \$4 to \$8 on every ton he buys. Half the freight cost, half the labor and time necessary for hauling; half the storage space. But the new High Test sacrifices nothing in efficiency. Does the job every bit as well—every time.

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red clover and alfalfa with Uncle Sam's OK



To prevent winter-killing, to get a quick start and a vigorous stand, the origin of Hoffman Seed has always been carefully checked. But now—you have the Government's assurance, too. All our Red Clover and Alfalfa seed is tested from grower to sower, its origin certified by the Dept. of Agriculture, and delivered under seal and official tag.

Absolutely the best that you can buy. Thoroughly cleaned and re-cleaned, free from foul weeds and germination-tested.

It's a great year for these two big pay crops. Quality very high and our prices low—\$6 to \$7 under last year.

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Full of interesting facts for the farmer. Write today for your copy, for free samples and prices.

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SAY you saw the advertisement in Pennsylvania Farmer when you were writing to our advertisers.

What Our Readers Say

More Personal Experience

AS a reader and subscriber of and to the Pennsylvania Farmer, I am afforded much pleasure in reading the articles by our friend, W. D. Zinn, especially because of the fact that he and I have come up through the scrambles at about the same pace. Of course there are a few exceptions as there are in most cases. However, in glancing back over my eventful career I can see many coincidences. I shall herein relate a few of them, being brief, for it occurs to me that the P. F. is not looking this way.

In the "Story of Woodbine Farm" I note one difference in our early lives. Mr. Zinn's father owned some property but my father owned none. He was very poor. He earned his living by day's work and in an accident at an old-fashioned water saw-mill suffered a broken leg and other injuries which left him in dire circumstances for months. He recovered and later on secured a few acres of land and a neighbor gave him a blind horse that was used to cultivate his few acres. My brother, 10 years my senior, handled this noble animal.

From Horse to Tractor

My father afterwards took up stone work, bricklaying and plastering. Things were going a little better and he bought a cow from the offspring of which he raised a yoke of oxen. Old "Buck and Berry" pressed hard against the yoke and things went still better than with the blind horse. I see right here that I will never get from this old horse to the tractor mentioned by Mr. Zinn unless I cut the corners.

I said I would be brief. Well, like Mr. Zinn, I hoed corn and potatoes until I would fall asleep at the supper table. My father kept on buying a few acres to his little farm and I helped him to clear it. It was well covered with brush, more brush, lots of stone.

We began, besides raising some corn and potatoes, to raise some flax. I helped to pull it under strict orders to keep it clear of weeds. We spread it out on meadow land to dry, after which it was gathered in and kept until the busy season was over, then it was dried over a fire, broken, scutched, hackled and afterwards spun and woven by my mother, who made clothes, table covers, sacks and what not.

One day, when the process of drying the flax preparatory to scutching was going on I thought the fire needed a little encouragement, which I gave it in the form of wood and more wood. The fire was always made up when the rack was empty. I fired when it was full and burnt a whole rack of flax. I didn't need to stand with my back to the fire to get warm immediately after. I might add here that I attended Sunday school dressed in a linen waist, knee pants and a bulrush hat made by a neighbor woman. My whole outfit didn't cost a penny in cash.

Blankets Still Good

My father was a reaper, too. He could handle a sickle to perfection. One day when he was reaping a call came for him to go to the house. He told me to reap until he returned. I started in on high and cut my little finger almost off so that it is a cripple to this day.

One thing more I will mention and stop short or the editor will charge on me. Mr. Zinn mentions the short wool rolls that our mothers used to spin. I am an old wool carder. I carded enough rolls to load a railroad train a mile long. More than 40 years ago, before I was married, I made for myself several pairs of blankets out of all wool. I sold all but two pairs, which I still had when I was married 42 years ago. These blankets have been in constant use in win-

ter time ever since and are good yet. It does me good to think on these things and note the wonderful changes in our way of living now and a half century ago.

J. A. Brant.

Westmoreland county, Pa.

Potter County ice Mine

THESE winter days, when people are planning on little vacation trips, why not include the Potter county ice mine? I have not seen this mentioned in The Pennsylvania Farmer since I have been a subscriber.

It is easily reached, being near the Roosevelt Highway and not far from the village of Coudersport. It is easy to find a camping place if one likes that part of a vacation trip.

The mine is on a hillside. It resembles an old-fashioned dug well of generous size. The owner of the place has built a little house over the well, thus marring nature, but still there is much of interest left.

The hotter the weather the faster the ice forms until great icicles hang from the stony walls of the well or mine, yet water lowered to the bottom and placed on the icy floor, never freezes.

It is not customary now for visitors to be allowed to go down the ladder into the well, but when I visited it our party was small, the hour early and we went down, a leap as it were from summer to winter. Sometimes the ladder, if left in the mine, is too ice covered to be used, so I heard.

Outside are strange shaped stones that have been taken out as the hole has been enlarged. One I saw was a dull brown color and the shape was almost like a ham. The odd shapes would be of great interest to a lover of geology.

Nearby, on the hillside, grows a small fern that is rather rare in this section, the delicate oak fern. The shape resembles our common meadow brake, but it never grows to any great size.

I felt well paid for my trip there and I am sure others interested in nature's freaks would feel the same.

Penn. Reader.

Value of Seed Treatment

FEED treatment seems to be necessary these days. For a long time I could not see it that way, but I have changed my mind. One of my friends who grows a large acreage of potatoes showed me the result of treating seed potatoes. He treated most of his seed but not all. He showed me the last row treated in the field when the plants were about a foot high. The result was very noticeable in the vigor of the plants. The seed was otherwise the same.

Last season I treated about 30 acres of seed and planted about five acres without treatment. The result was that I had lots of stem rot with the untreated seed, while with the treated seed I had almost none.

I treated the potatoes with an instantaneous dip. For quite a while I was unable to decide on the method of dipping so as not to waste the liquid too much. Finally I decided on wooden candy buckets and the half bushel wire baskets generally used for potato picking.

With about half a dozen of these buckets and baskets one man can work steady and lose very little liquid. He fills the buckets about three-fourths full of the liquid and then fills the baskets with potatoes and sets them in. When he has them all filled he takes the first one out and hangs it on a support above the bucket to let the liquid drain in the bucket again, and so on to the last one till they all hang to drain. By this time the first one is quite well drained and he empties it, fills it again, dips it and hangs it, and

It Takes More Than Rocks To Break "Weed Hog" Teeth

You can do things with the WEED HOG that you wouldn't dare do with any other tillage implement, especially a spring tooth harrow. You can work the WEED HOG in the roughest, roughest land but you can't beat it for stretch or break a tooth. WEED HOG is made of tempered spring steel and is GUARANTEED FOR LIFE against breakage. They go down deep, under and alongside rocks and stones and work the rich soil there into other tools missed.

You can fit perfect seed beds with no other tool but the WEED HOG. It works deep, deep, deep, breaks up lumps and clods, thoroughly mixes the humus and leaves deep, well-mixed seed bed. Sifts, better than any other implement, the seed into the WEED HOG-prepared seed bed.

You can save time and money by spraying stubble land with the WEED HOG. It is needed, nothing but the WEED HOG. It tears out the stubble, mixes it with the soil and leaves the land ready to seed.

You can cultivate your orchard with the WEED HOG alone. It plows up the ground, mixes the soil and keeps it weed-free. The WEED HOG is a plow and harrow in one. Looks like a harrow but digs like a plow.

OUTSTANDING FEATURES
GREAT STRENGTH: The WEED HOG is made almost entirely of tempered spring steel. It is GUARANTEED FOR LIFE against breakage, stretching or breaking, even in the roughest, roughest soil.

ADAPTABILITY: Teeth may be spaced on any bar as desired. Depth of cut may be regulated without adding weights, from a few inches to full plow depth.

WORKS IN TRASH: The WEED HOG is made with ample clearance and no front bar to trash. It works plow depth in trash, straw, barnyard manure with practically no clogging.

WORKS IN ANY SOIL: The WEED HOG is rugged but extremely flexible, frame that will make it to work under all soil conditions.

GET THE COMPLETE STORY
Clip coupon for free pamphlet which tells about the WEED HOG, what farmers say about it and shows pictures of it at work.

The WEED HOG
TRADE MARK REGISTERED

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Over 22 years of success. One man and team open furrow, drop fertilizer, drop seed, drop fertilizer if desired, and cover in one operation. Eureka Potato Planter opens and seed drops plus fertilizer in any soil. Better start, bigger yield.

Write today for catalogue describing latest line of Eureka made. Free for 1 and 2 rows, with or without fertilizer attachment. Special attachment for matted soil or field conditions. In stock near you.

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GREEN'S NURSERY CO.
60 Green St., Rochester, N. Y.

empties the second, fills it, dips it, etc. He can work ahead and lose little material.

We treated all our seed corn last season and we had a good stand. Now whether this accounts for it I do not know, but I am inclined to believe that it pays to treat the corn, as they claim that treated seed will not rot in the ground and that treatment will kill fungous organism which may be clinging to the seed.

Yes, it is true we cannot afford to ignore these new fangled ideas. My wife insists on putting a disinfectant in the drinking water for the chickens when they are confined in the house, especially when there are any symptoms of a cold or other troubles in the flock. The same holds true in summer spraying of fruit and truck. We have to be continually at it or we come out loser.

Last summer we sprayed our apples only two or three times and my neighbor sprayed every time he got spray letter from the county agent and the result was that my neighbor had perfect fruit while ours was not all perfect.

So it goes; there are lots of expenses connected with good farming, in raising and selling a good crop it is not all profit.

C. R. Bashore.
Berks county, Pa.

A Lump of Sugar

I WONDERED a little today if we farmers fail to give our farm animals as much thought as we should. Our old mare, Lady, got kicked pretty bad the other night, and as I've always thought a lot of Lady I've always taken the best care of her.

You see Lady is an old family stand by. She was foaled and raised by my dad and her mother carried me safely through the days of courtship with the girl I eventually married.

Lady, like the rest of us, is no longer young, but she is still a good worker. She has taught my boys how to harness her up, drive her around the farm, put her back in the stable and in a few minutes take her out again.

But, as I was saying, Lady got kicked on the point of the shoulder. I took out a few pieces of bone and she is very lame, but she is a good worker. She never makes a bit of fuss over being doctored and in her horsey philosophy seems to think it's just part of getting well. She seems to know that she has her part to play in the spring's work and she must be ready for it.

Lady whinnies to me when I go into the barn and lets me know she is and I am still living, and that's a lot. She is a great old fogey, I know, but I am inclined to baby her a little. But that is not the point. You see I'd been dopping her shoulder tonight and she stood and watched me without a strap on her. I knew I hurt her even though I tried to be as gentle as possible, and I felt I needed to make up with her, so I took out some lumps of sugar to her and, do you know, that old mare didn't know what it was.

That just started me to thinking. I've always babied Lady. She has been a good pal to me and to think that in all these years of service I'll just bet she has never been offered a lump of sugar before. If Lady gets over this trouble she is good for many more years of work, but if she doesn't I'll always feel a little guilty that it had to be when she was down and out that I first offered her a lump of sugar.

I've resolved that from now on my burden bearers will get their lump of sugar early enough in life so that I will enjoy giving it to them when they are down and out. A Farmer.

Corn Year After Year

I RECENTLY noticed a reply to an inquiry regarding the growing of shagreen corn, both articles being printed in the Pennsylvania Farmer.



IT'S A FUNNY THING that cheap paint costs more than good paint

It isn't so awfully funny either—not when you are paying the bill! Cheap paint is made from cheap ingredients to keep the cost down. Its first cost may be less, but it covers less area, it looks cheap, it is not durable. The job soon needs repainting. That's why in the end cheap paint costs more than good paint. Felton-Sibley paint is good paint and is sold by reliable dealers.

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Save-the-Horse Treatment
FREE! Send now for the greatest horse book ever given away. Tells how to locate and treat all lamenesses. Book, sample guarantee, and proof that "Save-the-Horse" makes good, all sent free. Write today.

TRIP (CHEMICAL), 377 State Street, Philadelphia, N. Y. Ask your druggist—or order direct.

FIFTH ANNUAL PUBLIC SALE
POLAND-CHINA HOGS

35 Head Bred Gilts 10 Head Young Boars
Wednesday, January 29, 1930 at 12:30 P.M.

Sale to be held in heated pavilion at the farm on the concrete state road No. 82, midway between Conowingo, Pennsylvania and Philadelphia, Pennsylvania.

This draft from the Buck and Doe Run Valley Farm's herd is composed wholly of sons and daughters of 21 to 1928 Ohio State Fair Junior Champion. The gilts are bred to three outstanding young boars—a son of Silver King, a son of The Banner and a son of Champion Hill, which was Junior Champion at the 1928 Ohio State Fair.

Write for a catalogue.
THE SAINT AMOUR COMPANY, Mortonville, Penna.

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Gray 3-year-old, grandson of Carrol, Black 2-year-old (Lact, Charm) cross. These stallions have size, quality and action. Yearling son of Lact, Dragon Dam, brood mares in foal, some younger 1, 2, 3 years. Mated Tramp, Write.

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PERCHERONS for sale. Coming 5 year grey stallion of champion breeding, \$450.00. Coming 2 year grey, \$250.00. Mares of various ages, \$100.00 to \$700.00. William A. Reid, Oxford, Pa.

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REG. SPOTTED POLAND-CHINAS. Pigs \$10.00. Reg. Guernsey Bull calves, cows & heifers. Write wants, A. M. Kneel, P. O. Box 2, Honey Brook, Pa.

Big Type Poland-Chinas. Boars ready for service. Gilts bred for spring farrow. Good ones. Easy feeders. Price right. O. C. Powell, Ada, Okla.

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Chester Whites Since 1887. Bred gilts, fall pigs. Size, type, quality. J. C. & C. H. Brantigan, E. S. Sidney, Ohio.

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Hereford Cattle—Poland-China Hogs—Hampshire Sheep—Draft Horses. THE SAINT AMOUR COMPANY, Mortonville, Penna.

Angus Cattle at reasonable prices. Write BAYARD BROS., Waynesburg, Pa.

Herefords from registered Federal accredited at all times. Personal breeding stock for sale at all times. Personal breeding stock for sale at all times. George C. Cochran, Dawson, Pa.

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1300 acres of most fertile soil. Small 17-24 plants and ornamentals at special prices. Healthy, vigorous stock.

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SEED OATS—Fulham, early red, Copner, early white, Miami and Big Four, mid-season kinds, all heavy yielders.
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Quality Seed Carefully Selected. Complete line of Clover, Grasses, etc. Send for FREE Copy of our Catalog. Everything for Farm and Garden.

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Buy Direct, Lowest Factory Prices
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CLOVER SEED OF HIGH PURITY and germination for sale. Medium and Mammoth red clovers, \$12.50; Alsike, \$11.00; yellow and white sweet clovers, \$6.00; 100 lb. alfalfa, \$15.00; Canadian Variegated alfalfa, \$20.00; State seed of Gritum alfalfa, \$24.00; Blackfoot Gritum alfalfa, \$24.00; Timothy hay, \$10.00; State seed, \$2.25. All prices per bushel, bags free, freight paid. Inquirer for any lotus see per cat. for alfalfa and clovers, 25¢ per cat. Reference: Publishing National Bank, M. G. Stoller, Fairport, Ohio.

PEACH AND APPLE TREES \$5.00 per 100 and up. Yellow Delicious and Royal Red Delicious apples. In small or large lots. Plums, pears, cherries, grapes, nuts, berries, peaches, vines, ornamental trees, shrubs, exotics, etc. Free Catalog. Tennessee Nursery Company, Box 125, Nashville, Tenn.

PLANT KID FOR HAY AND COWMAN pasture. More attractive than alfalfa and 2 1/2 times more. Grows on poor soil and without lime. For filler or foundation. Never needs replanting and never a pest. Perfectly hardy. Write for information. Charles F. Leach, Mendota, Ill.

IN ADDITION TO OUR OWN SPECIAL SERVICE, we sell all the seeds recommended by the New York State College of Agriculture, Cornell University, Ithaca, New York. See our advertisement in this issue on page 18. The Forest Seed Co., Cortland, N. Y.

PRIZE DAHLIA, 12 BRASSIES \$1.00. Flower seed, beautifully mixed, with order, write Mrs. Anna Henschel, 329 Barbours St., Norfolk, Va.

HOME-GROWN CLOVER AND TIMOTHY. Also other field seeds, from 1929. Write for prices, U. J. Cover, Mt. Glen, Ohio.

DOGS

PERFECT GERMAN POLICE PUPPIES 4 months old. Males and females. Stevenson Kennels, Beaver, Pa.

BAT TERRIER PUPPIES—Red for ratting. Satisfaction guaranteed. Crusaders Kennels, Stamford, Conn.

PRODIGIOUS POLICE PUP—Breeded, aged, intelligent watch dogs. Ten to twenty dollars. Irwin Hestetter, R. 4, Littlestown, Pa.

THE OLD ENGLISH SHEPHERD PUP. Natural head drivers, cow, sheep and watch dogs. H. G. Loucks, Vermilion, Ohio.



A Modern Dairy Barn

Agricultural Engineering

By R. U. BLASINGAME

Value of Drinking Cups

WE are told that milk is 83 per cent water. If a manufacturer was making a product which was 86 per cent water the first thing he would do would be to put in an adequate water supply. Water is one of the cheapest things to obtain around a farm. Nature supplies it in abundance, but it has to be piped to the place where it is used. It is not anything like as expensive as wheat, oats or corn; yet farmers do not think of trying to do without the machinery to produce these products and the power to operate it. The binder is used only a few days a year. A water system is in operation every day and water is an absolute essential to both man and lower animals.

Drinking Cup Requirements

This method of supplying water to dairy cows is automatic and the cow can drink whenever she cares to. This means that she will drink more water than when she is driven to the spring or creek once or twice per day. Also water piped from the well or cistern is about ground temperature, which is possibly around 48 to 60 degrees Fahrenheit. With the pneumatic or pressure system the tank is usually located in the basement of some building where it is kept from freezing. The pipes run under ground and then through the barn which, as a rule, is above freezing. Moderately warm water does not chill the cow's system, therefore less feed is required to bring the water she drinks up to body temperature.

Water Pressure Required

One manufacturer says that his drinking cups will work under three pounds of pressure and up to 30 pounds per square inch. If the water pressure is beyond 30 pounds then it is best to use a pressure regulator.

Now about water pressure. Every foot of head (or height) of water will give a pressure of .434 pounds per square inch. Saying it another way, water standing in a pipe 2.3 feet high will give one pound of pressure for each square inch. Therefore, to secure three pounds pressure the water must have a head of about seven feet. No doubt the reason the drinking cup is designated for a maximum of 30 pounds water pressure is because most of the automatic electric water systems work under that pressure. In fact they cut out at 30 pounds. This pressure is equal to a water tank about 92 feet high.

Also the engine driven pneumatic water systems usually work under 30 pounds maximum pressure.

The automatic cutout device on electric water systems works on the

same principle as the air system at the garage for inflating automobile tires.

But no matter what water system you can secure, remember that milk is 86 per cent water and a cow cannot produce a full flow of milk without it.

New Dairy Buildings

I HAD the privilege of spending a day recently in Frederick county, Maryland. The chief reason for visiting this section was to see the new dairy buildings which are becoming so common through the country.

It is not uncommon to see both a new dairy barn and a milk house close by built of concrete blocks. The accompanying illustration shows the new dairy barn and one corner of the milk house which has just been built by Mr. Frank Stauffer, just out of Frederick, Maryland.

The milk house is 24 x 12 feet. It is divided into three rooms. One room contains the boiler and has a solid partition separating it from the other part of the milk house. It measures 12 x 3 feet 6 inches.

The next room has two windows, a sink and a galvanized iron sterilizer in which Mr. Stauffer sterilizes his milk cans and other utensils. He places the cans in the sterilizer upside down and when he is through steaming them the doors of the sterilizer are kept closed and the heat from the steam causes the cans to dry thoroughly.

The bacteriologists tell us that very few germs can live in the presence of steam and especially when the steamed vessels are thoroughly dried after steaming. Bacteria, it seems, require a certain amount of moisture and cannot live long when perfectly dry. The sterilizer room is 11 x 12 feet and has a drain in the center of the concrete floor.

The next room in the milk house, which is closest to the barn, contains a cork insulated concrete tank and the surface cooler. The milk is brought from the barn into this room, passed over the surface cooler and the 10-gallon cans placed immediately in the cork insulated vat. This milk room is equipped with screens, for both windows and doors.

With this equipment Mr. Stauffer has a score under the Washington, D. C., milk regulations of 97 per cent. The barn measures 36 x 70 feet and holds 32 cows. The hay is dropped from mow through chutes to the ground floor. Doors are provided on the chutes to exclude the dust from the barn. To the right as one enters the barn is a small room with clean towels and a washbowl provide ample opportunity for cleanliness before milking.

AGENTS

ARE YOU MAKING ENOUGH MONEY?—Great us show you how to increase your income. We show you how to do as others have done. We show you how to make big money. Our good work recently Johnson made \$17,135. In one year \$147,001. Hale, \$58,100; Chamberlain, \$26,000. Experience not necessary. We tell you how to make money with the right kind of service to the host of stock. Write today—it will pay you. The Greening Nursery Co., 20 Monroe St., Monroe, Mich.

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FOR SALE—"Select Dairy Alfalfa" for 100 head feeders. Delivered. Write for Catalog. John DeHays Hay Co., 192 No. Ohio Street, Chicago, Ill.

ALFALFA HAY—Our lots for sale. Chas. J. Wing, Box 22, Mechanicsburg, Ohio.

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CRUM'S STANCHIONS are guaranteed to please the purchaser. They are shipped right to trial in the buyer's stall. They are made of steel partitions, stalls and standing water bowls. Litter and Feed Carriers, and other barn equipment. Send for booklet. Write W. Dunbar, East Street, Forresterville, Conn.

PET STOCK

CRUM'S STANCHIONS are guaranteed to please the purchaser. They are shipped right to trial in the buyer's stall. They are made of steel partitions, stalls and standing water bowls. Litter and Feed Carriers, and other barn equipment. Send for booklet. Write W. Dunbar, East Street, Forresterville, Conn.

FARM LAND

5000 GETS 102 ACRES IN JERSEY.—Money making potato, truck and fruit farm, edge deep, well water, attractive modern home, low, gas and electricity available; 125 head cows, other fruit, valuable wood. Put in \$2500 only \$500 down. Picture and details on request. 1,000 bargains. Stout Agency, 1423 N. East Street, Philadelphia, Pa.

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TURKEYS

LIMITED NUMBER MAMMOTH BRONZE breeding flocks, \$12.00 to \$15.00 each. 88% of my flock mated. Eggs, 40¢. Poults, 90¢. Live delivery guaranteed. Allison Harner, Sarsen, Penn.

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GIANT BRONZE TURKEYS—Massive Youngsters. Greatly reduced prices. Big Buff Rock Cockerels, well refined layers. J. C. Clipp & Son, Box 5, Danville, Ind.

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GOURN RED TURKEYS, TOULOUSE GESE. Special prices before March. Elva Cornan, Beet Creek, Pa.

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RED TURKEY TURKEYS—600 Shoo and egg birds. Mrs. O. Luther Miller, Wiscand Farm, Kestletown, Va.

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Radio Program

A WEEK full of the most important agricultural news is in store for radio listeners during the last week in January. From Monday, January 27, to Thursday, January 30, members of the National Farm and Home Hour family who hear the U. S. Department of Agriculture over the NBC from 11:45 a. m. to 12:30 p. m., Central Standard time, will hear of the prospects in their particular lines for 1930.

Full Hour January 27

Stations which regularly broadcast the Farm and Home Hour on the Pacific Coast on Saturdays will also broadcast the agricultural outlook program on January 27. Instead of the usual 45-minute program, a full hour will be devoted to the first of the outlook programs on that day.

Farm Board on January 31

On Friday, January 31, the Federal Farm Board will again take the air with a program designed to keep farmers and others interested in agriculture abreast of its activities.

The complete program for the week of the Department of Agriculture and the Federal Farm Board speakers follows:

Monday, January 27

Annual Agricultural Outlook program.

Tuesday, January 28

The Wheat Outlook, O. C. Stine. The Cotton Outlook, A. W. Palmer. The Tobacco Outlook, C. E. Gage. The Feed Grains Outlook, J. A. Becker.

Wednesday, January 29

The Dairy Outlook, C. L. Holmes. The Beef Cattle Outlook, C. E. Gibbons. The Hog Outlook, C. A. Burmeister. The Sheep Outlook, C. L. Harlan.

Thursday, January 30

The Potato Outlook, J. B. Shepard. The Fruit Outlook, F. G. Robb. The Early Vegetable Outlook, Paul Koehn. The Poultry and Egg Outlook, Roy C. Potts.

Friday, January 31

The Household Calendar, Rowena Schmidt Carpenter.

The Federal Farm Board program.

Saturday, February 1.

Four-H Club program.

IN opening the annual agricultural outlook reports, January 27, Chairman Legge of the Federal Farm Board will head the program with a talk emphasizing the need of control of production in orderly marketing. Secretary of Agriculture Hyde will conclude with an appeal for control of production and the use of economic information in bringing this about. N. A. Olsen, Chief of the Bureau of Agricultural Economics, will preside and the U. S. Marine Band will furnish music.

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EXCHANGE

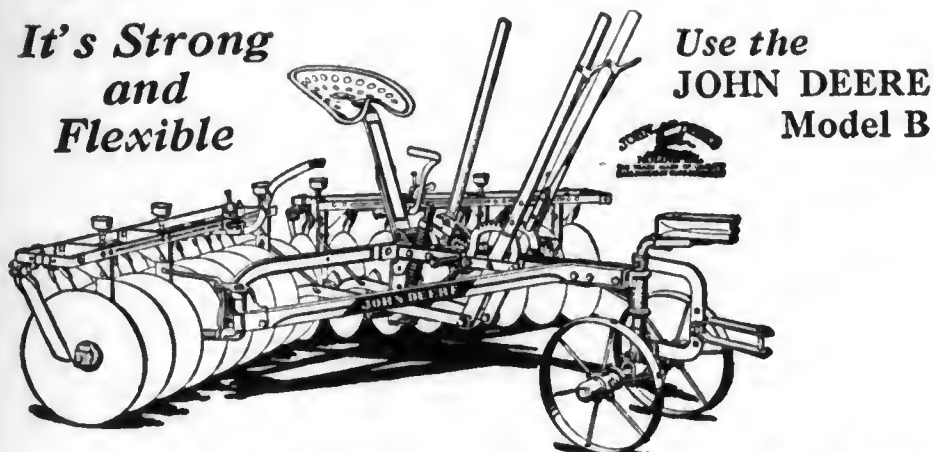


UNLOCK THE STOREHOUSE OF PLANT FOOD IN YOUR SOIL with a Good Disk Harrow

Locked in the soil is a veritable storehouse of plant food waiting to be released for the benefit of your crops. A John Deere Disk Harrow is the master key that unlocks the buried treasure, pen-

etrating the hard, weedy or stubbled surface, pulverizing the lumps of plowed ground, mixing the soil and making available plant food so necessary in the growing of your crops.

**It's Strong
and
Flexible**



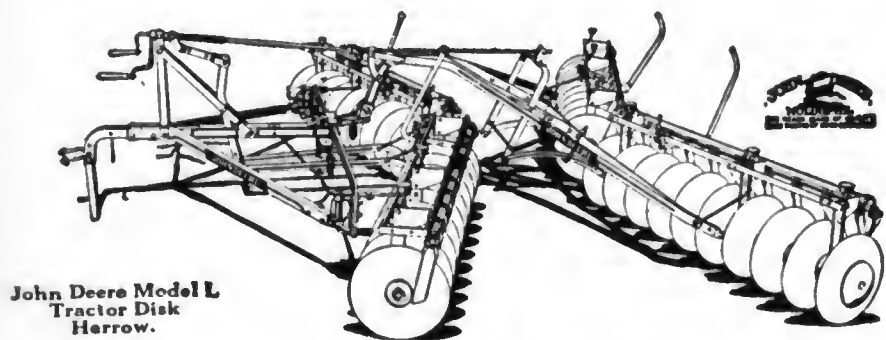
**Use the
JOHN DEERE
Model B**

For nearly half a century the John Deere Model B Disk Harrow has been helping thousands of farmers to greater profits through its superior performance. In uneven fields where flexibility is essential to even penetration, the Model B is supreme.

The pivoted yoke controlled by

powerful pressure spring and third lever allows one gang to rise over an obstruction without affecting the work of the other gang.

Tractor harrow strength is built into the Model B. It can be quickly converted into a double-action disk harrow by adding a rear section which we can furnish.



John Deere Model L
Tractor Disk
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Two Diskings in One Trip

After the John Deere Model L has been over your field you'll find a real job of double diskings. The soil is worked thoroughly the full width of the harrow, every trip.

The famous John Deere Yielding Lock Coupling keeps the rear disks in proper alignment so they

cut out ridges left by the front disks.

Oscillating scrapers and double-bar riveted gang frames are new improvements.

Remember, all John Deere Disk Harrows have long-wearing, heat-treated Alloy Steel Disks.

See your John Deere dealer. Write for folder describing the machine in which you are interested. Write to John Deere, Moline, Illinois, and ask for Booklet—B1-026.

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THE TRADE MARK OF QUALITY MADE FAMOUS BY GOOD IMPLEMENTS

More Orchard and Vegetable Profits in 1930

Try our NEW PROCESS OIL (recommended by the U. S. Government Entomologists) also our INSTANT BORDEAUX. They will do the work, save the crop and make better quality.

We also have all the other Spray Materials for your needs, wet or dry application, such as

LIME SULPHUR SOLUTION
SULPHUR (all grades)
DUSTING MATERIALS (all mixtures)
ARSENATE OF LEAD
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BLUE STONE
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Write and tell us your Spray troubles. We will do the rest.

HAGERSTOWN SPRAY MATERIAL CO. Hagerstown, Maryland

BLACK WALNUT KERNELS . . . WANTED

We will Pay During the Month of February
SIXTY-FIVE CENTS PER POUND SIXTY CENTS PER POUND
in less than barrel lots

FOR HAND-PICKED BLACK WALNUT KERNELS
WE WILL PAY TRANSPORTATION CHARGES
Blanke-Baer Extract & Preserving Company, 3224 South Kingshighway, St. Louis, Mo.

Farm Facts and Fancies

By ALVA AGEE

I LAY no claim to a fixed judgment about future events. It is one's privilege to be slightly optimistic at times and just as much pessimistic at others. The present attempt of this government to exercise some control over the price of the present wheat crop is one of the most interesting ventures we ever have made in our farm economics world. If there was to be a demonstration in the attempted control that has been so earnestly advocated for years, this crop year was the opportune time. There was less wheat for shipment from the southern hemisphere, and Canada was of a like mind with us in withholding grain until Europe would become ready to bid up.

It seemed to me due to a great mass of believers in price control that the effort be made in accordance with the intent of the law that was enacted by a majority of our law makers. Our government is based on the rule of the majority, and while we may be far from arriving at the judgment of the mass of people we must accept the acts of a majority as representative. Everything led up to an attempted demonstration of our power to control wheat prices. This was the year for that.

IF a great world surplus of wheat were on hand this year, and if Canada had been inclined to pursue its usual policy of rushing its wheat to market before the lakes were closed with ice, an attempt on our part to control wheat prices would certainly have been ill-timed. So far as I can see this year was made to order for those who paved the way for the creation of the Farm Marketing Board and the provision for its activities. If a winning cannot be made this year, quite possibly it never can.

WITHIN the last ten years we have had two other notable efforts of countries to control the prices of two products. The colonies of Great Britain were producing nearly three-fourths of all the world's rubber, and prices were put upon a high level. The result was that the production of rubber in other countries was stimulated, means of using old rubber were devised, and the situation of the producers in British colonies became so bad that the attempt was abandoned.

Then Brazil tried it with coffee. Within a few years the new plantations that had been made in view of the high price of coffee added so much to production that the Brazilian crop alone exceeded the entire world's demands by 25 per cent, and new plantings in other producing countries are coming into bearing. The result is a breakdown in the scheme, the price of coffee has dropped nearly a half from the year's high, and I see by the morning's paper that it continues to break. Production was unduly stimulated.

THE Marketing Board is trying to influence the growers of spring wheat in this country not to expand area, and growers are told that the high loaning price made on the present crop has no application to next fall's crop. The effort is good so far as it goes, but even if acreage is held down to normal in our spring wheat region, I am wondering what Canada will do, and she has nearly unlimited capacity for expansion.

However, the immediate problem is the price to be got for the wheat on hand the crop of 1929-30. One watches the papers to see whether Europe is about to bid up on wheat to meet her immediate needs in the first half of this year. Our best official authorities claim that she must draw heavily upon the reserves now held by Canada and this country. If

they are right, our first national venture in price control can turn out a success.

If the Russian Soviet is compelled to export wheat to get credit, regardless of her people's need, and if the unusually good crops of part of Europe carry her farther than we had figured, Canada may yield and let the wheat go forward freely.

SOME writers present the view that Europe is bluffing along on home supplies, hoping to weaken confidence here and in Canada. That seems to me a foolish view. The fact is that some of the keenest minds in this and other countries are engaged in speculation in grain. They have nearly unlimited resources. The ones who expect to see higher prices buy wheat for delivery in some future month. The ones who expect to see lower prices sell wheat for future delivery.

There is no sentiment in the matter, but only hard-headed desire to guess right and make money. It results that the prices of futures register the composite judgment of a host of skilled investors and speculators.

GRANTING that something may happen any day to cause Europe to begin to take our wheat freely at an advancing price, if this does not come about within the next two months one wonders whether Canada does not have an advantage over this country. It knows that we are committed to the present effort, and have loaned money up near market price—evidently exceeding it one day. It isn't in the nature of things that our board or farmers will throw up the sponge during this crop year, but will see the matter through.

We shall stay by this first attempt to control prices, and one wonders whether Canada may not be quicker to supply wheat if Europe manages to get along without bidding up prices very materially. This thought may have no particular value, but Canada seems to me to have a big advantage in that we are definitely committed to this venture for this year, while she can unload some wheat when it seems wise to her.

IF Europe's need is as great and as immediate as some figure it to be, we are bound to win. Even so, it will be due to demand in relation to supply. The experience can prove only that when demand is close to supply prices go up, and provision for growers to hold for the rise works out for their good. When we have a considerable world surplus the problem is very different, and all the time we have the puzzle of holding production down when profits increase.

Quality and Prices

ONE Ohio county, when its sheep growers got tired of the prices they had been receiving, proceeded to investigate. One-fourth of the county's agricultural income was derived from sheep, of which there were 48,000 head in the county. Less than 60 per cent of the lambs marketed from the county were topping the market.

Under the analysis of the marketing specialist it was found that the poor returns to sheep raisers were due to lack of thrift in the lambs, which were usually infested with stomach worms or other parasites, to poor feeding or inferior breeding, or to inability of the producer to tell when his lambs were fat enough for market.

THE COVER THIS WEEK

IN the day of the Conestoga wagon the National Pike was the main artery of commerce between the Atlantic Seaboard and the region west of the Alleghenies. Our cover this week shows one of the few surviving toll gates on this route. This one is located at West Alexander, Pa.

To Make a Rock Garden

Would you be so kind as to give me information about making a rock garden? What kind of flowers are suitable? How big should the rocks be? Also is it too late to make one? The garden is about four feet wide and 25 feet long.
E. B. H.

BEFORE a definite answer could be made to the question above one must know something about the topography and vegetation of the area where the garden is to be placed. If the area is sloping or even hilly and it would offer an ideal setting for developing such a garden. If, however, the property is perfectly level and a bed is to be cut out of lawn (4 by 25 feet) one is not advised in attempting such a project. A development would be incongruous and spoil the peacefulness of general development which you have. In other words, it would mar landscape design.

One might be justified in attempting a rock garden if the proposed garden abutted a heavily wooded or an old stone wall. Rock gardens have been developed very successfully around the foundation of an barn. A natural environment or proper "motif" then is necessary or one should attempt a rock garden.

Assuming that a setting justifying developing of a rock garden exists, I would introduce rocks of various sizes and shapes; one might use an exposed surface of three or four feet, a few with one and a square foot and the others with one square foot. Thirteen to fifteen stones scattered over the area as you have specified would be right. They should be grouped and there to form pockets in which plants can be placed and they should have two-thirds of their bulk underground to prevent heaving during the winter.

All low growing plants may be used for many, such as Creeping Thyme (Lysimachia) and deadnettle (Lamium) are rampant in habit of growth and smother out the more delicate and more beautiful types. In order to maintain a typical rock garden, plants should be chosen which are in harmony with the spirit of the garden. Many rock gardens are filled with common Sweet Williams, larkspurs, Phlox, Hollyhocks and annuals, which belong to a different type of garden.

The following list of perennials in plants which either possess a fine texture foliage or are very low growing plants which do well in confined areas:

Chilsea bottle de neige (Ball of Snow); Alyssum argentea (Silverwort); Alyssum saxatile compactum (Golden Tuft); Anemone pennsylvanica (Canadian Windflower); Anemone canadensis (American Columbine); Arabis alpina (Rock cress); Campanula carpatia (Carpathian Bell); Centaurea montana (Mountain Blue); Cerastium tomentosum (White in Summer); Dianthus deltoides (Maiden Pink); Dianthus plumarius (Scotch Pink); Dianthus eximius (Wild Bleeding Heart); Geranium sanguineum (Coral Bells); Heuchera brizoides (Coral Bells); Iberis sempervirens (Evergreen candytuft); Linaria cristata (Crested Iris); Linaria (Kenilworth Ivy); Linum catharticum (Perennial Flax); Lysichiton (Spatterdock); Lysichiton (Spatterdock); Primula veris (English Primrose); Saponaria ocyroides (Soapwort); Sedum in variety (Cups); Stokesia caryanensis (Aster); Thalictrum aquilegifolium (Meadow rue); Tunicia saxifraga (Saxifrage like Thyme); Veronica (Hoary Speedwell); Veronica (Creeping Speedwell); Veronica spicata (Speedwell); Viola Minor (Periwinkle); Viola in variety (Pansies).
E. J. Wilde.



CROPS

like chickens, or like livestock—
should be fed according to age

Royster FOR POTATOES

This year on twenty-five acres I had a certified yield of 400 to 500 bushels of seed potatoes.
H. C. Andrews, Waterloo, N. Y.

Royster FOR WHEAT

This year my Royster fertilized wheat will average at least 40 bushels to the acre.
W. S. Sheehan
Kennett Square, Pa.

Royster FOR CORN

With 220 pounds of Royster's, the yield was 71 bushels of shelled corn per acre of good, bright corn.
C. L. Mergenthaler,
Fostoria, O.

Royster

FIELD TESTED FERTILIZERS

THERE IS A Royster DEALER NEAR YOU - HE IS A GOOD MAN TO KNOW

Farm homes that are castles

You can tell the farm home which is a castle in the proper sense of the word. Not a mansion to be sure. But always imposing, impressive. Large, sunshiny rooms in the midst of broad acres and open fields. Expanse of ground, fresh country air. Neat trimmings and landscaping which add dignity to the house.

You know before you enter that the owner has a certain soundness of thinking usually called business sense. Always on guard against waste. And usually the housewife tells you that thrift—care and scrutiny at the time of buying—bought those extras which make the inside seem so complete. For, she adds, they read the advertisements.

It pays to read advertising

Reading the advertisements tells you what to buy and how to get most value for every penny spent. A dozen needs arise on your farm every week. Knowing which machine which tools, which automobile, which suite of furniture, which cooking fuel is the best for the price you pay, will save money otherwise thrown away. Perhaps as little as twenty-five cents a week—perhaps a hundred dollars a single purchase.

You can beautify your home—make a real castle out of it—with money saved in buying advertised goods. When you buy merchandise advertised by name, you get purchase value in the greatest degree from every dollar spent.

PENNSYLVANIA FARMER

Consolidated with
PENNSYLVANIA STOCKMAN and FARMER
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NO NATIONAL POTATO PLAN

THE National Potato Institute, which met recently in Chicago to consider the problems of producers, decided that potato growers could not work with the Federal Farm Board because it requires that a single national cooperative organization shall handle each commodity. The potato growers will therefore try to work out other plans, each adapted to the region in which it is to operate.

FUTURE SHOWS

AFTER much discussion of the future of the Farm Products Show at Harrisburg last week the conclusion is that it will be held at the usual time in 1931 and that it will continue as now free to the public. No official conclusion has been reached, but it is likely to be as just stated. The next thing to consider is the possibility of an autumn livestock and fatstock show, including evening horse shows. This would certainly be popular and would probably be successful from a financial as well as an educational standpoint.

LOWER AT LONDON

AT the opening of the London wool auctions last week merino wools sold about 15 per cent and crossbred wools 20@25 per cent below the prices realized at the December sales. The offering was large, 164,500 bales, and the demand not in consonance with the supply. The decline was greater than generally expected, though a slight improvement came later. What effect this will have on our market remains to be seen, but certainly it cannot be favorable. The London sales are the best possible reflection of the world's wool situation, being open to the sellers and the buyers of all continents. Our wool situation is different and will be as long as we produce less than we use and maintain a tariff on it.

WE VENTURE TO SUGGEST

THERE are some things which indicate that the problem of rural electrification may get into politics. Before it gets there we want to make one brief statement and one suggestion. This matter is being handled properly now, by the cooperation of farmers and utilities in their Joint Committee. It cannot be so well handled by politicians, particularly by those who fail to recognize the financial problem involved in extensions. For unless the companies can secure credit they cannot make the extensions rural service requires, and they cannot secure credit unless they are able to show that extensions may ultimately earn something. No amount of legislation on rates will furnish money for extensions that do not promise earnings. The Joint Committee—both parts of it—is working hard to reduce costs and consequently

initial rates. The Joint Committee is striving to increase the use of current so that the users may enjoy lower rates. Our suggestion to farmers is to leave their cause in the hands of this Joint Committee rather than in the hands of politicians, no matter how attractive the promises of the latter may be. Rural electrification got nowhere until the Joint Committee went to work on it. And that is where it will get it if it gets into politics.

A PAIR OF HERETICS

THE Commissioner of Agriculture of Minnesota thinks that the Federal Farm Board is unduly alarmed over the prospective spring wheat acreage. He says, "We know that production and price have a relationship to each other, but to try to control production may prove dangerous. Operating farms is not like running a factory." The chairman of the Minnesota railroad and warehouse commission says: "It may be that I belong to the old school; but I have always felt, and see no reason now for changing my mind, that the farmer is the best judge of how much grain he should sow of the various kinds." What should be done with these and other hard-shell heretics who don't, won't or can't subscribe to the modern doctrine that some commission or board should regulate production, marketing and everything else?

UNLESS AND UNLESS!

OUR friends the outlookers have been busy at Washington of late and they are now releasing the results of their cogitations and consultations. As to wheat they say: "There is little in the wheat situation in the United States and other countries at present to indicate that prices for the 1930 crop of the United States will be much different from those prevailing for the 1929 crop—unless fall-sown wheat suffers severe winter damage or (unless) the spring wheat acreage is reduced." Reading further we find that "unless adverse conditions develop between now and harvest time another large crop of winter wheat will be produced in 1930." And still further as to spring wheat "Any expansion would probably result in lower prices, if average or better than average yields are obtained, unless the protein content of hard winter wheat is lower than in 1929." Turning to Russia the outlookers find that there isn't much "likelihood that Russia will be in position to export appreciable quantities next year unless the yield is high." We venture to add that the outlookers will find that they are right in all their statements—unless they are wrong.

MOTH PROOF

LAST week the American Woolen Company, the largest producer of wool fabrics, announced its prices for staple fall suitings, and they are practically the same as last year. The public will be less interested in this than in the accompanying announcement that these cloths are guaranteed to be moth-proof. If we are not mistaken this is the first guarantee of the kind ever made by a reputable manufacturer of wool fabrics. With the guaranty goes the statement that the treatment which protects against moth does not injure the cloth in construction, appearance or other respects. This discovery, if it proves its worth, may have a more important bearing on the use of wool fabrics than we now realize.

FROM LIFE

LATE last year a certain man was sold out by the sheriff, to the surprise of many who did not know his circumstances. For he had always lived as a man of wealth and leisure. The trouble was that as a boy he was never taught or made to work. It was known that he would have much revenue-producing

property when he came of age and so would not need to work. At any rate he never tackled anything seriously except sports, in several lines of which he became rather proficient. His property gradually dwindled until now he has nothing and can do nothing for himself. Those who "spoiled" him in youth may be responsible in part, but he has known for years that he could not go on indefinitely spending more than his income. Those who worry because their children have to work might learn something from this little sketch.

FATAL BULLS

THIS week we must record two more fatal assaults by bulls. January 18th Sigmund Sasnowski, an employe of Paul McGraw, Wayne county, Pa., went into the stall of a dehorned four-year-old Guernsey bull for the purpose of leading it to water. The bull suddenly attacked him and crushed him so that he died within half an hour. The collier dog which accompanied Mr. Sasnowski went to his rescue and allowed him to get out of the bull's stall, but even the dog's prompt counter-attack was too late. The victim in this case had been warned against going alone to the bull's stall but had always replied that he was not afraid. January 16th Michael Balchies, of Larksville, Luzerne county, Pa., was found dead in the stall of a bull in the barn of Julius Martin, his body terribly mangled. Nobody witnessed this attack and it is supposed that Mr. Balchies entered the bull stall by mistake, as he was not helping to care for the cattle.

The above and the two following cases are reported by friends who urge us to continue these warnings. William Kickamp of Litchfield, Ill., was seriously injured by his bull on Wednesday of last week. His dog, breed not stated, ran to a neighbor's house and barked until it got the neighbor to follow to the bull's lot, where he found Mr. Kickamp unconscious in the snow. Does a dog think in another case a convenient tree saved the life of the man who entered the bull's paddock. He is thankful for the tree but not impressed by its comfort in cold weather, for the bull kept him in the branches for over an hour. Four cases this week, and doubtless we hear about only a few of them. How long would our list be if we got them all?

SAME OLD PROBLEMS

WE have just gone over a couple of discussions at a meeting of a farmers' organization, and they seemed rather familiar in several ways. One speaker observed that they had all realized long ago that the only people who know how to farm are those who are not farming. The competition of foreign products was brought out and the assistance of the government was demanded in handling the problem. Two speakers discussed the government's part—one saying that it could and would do nothing and the other urging farmers to formulate a policy which the government could adopt. But, like many orators, he failed to specify what that policy should be. Then both discussions drifted into various essentials of successful farming—proved blood, better machinery, soil fertility, reduction of costs of production, etc. Let us add, before we forget it, that these meetings were held not in the United States but in England.

IN THE CENSUS

IN the census of 1930 farmers will be asked for a greater variety of information than any earlier census. In fact so much is included in the farm schedule that taking the census will be a big job this time. We can all help by giving the enumerators careful records and estimates. Let us try to do our part to assist our benevolent Uncle Sam to get and to give the world complete agricultural information.

January 1, 1930

Penn'a State Farm Products Show

Keystone Agriculture Stages Mid-Winter Round-Up

THE annual Farm Products Show and the annual meetings of twenty-eight state organizations drew thousands of farmers to Harrisburg last week—how many thousands no one knows, for the shows and meetings were so scattered and no check could be kept on attendance. The crowds were large everywhere, exhibits and at meetings and banquets.

There was general satisfaction over the fact that this was the last year when such "scattering" of exhibits and meetings will be necessary. Before next show the new building will be ready, everybody may see everything on the nine acres it will cover. Prevailing sentiment favors having these events in January and favors the show rather than even a moderate addition fee; but the arguments of stockmen for earlier show should be given proper consideration in the hope that we may have a great livestock and fat stock show as well as a mid-winter round-up.

It is hard to summarize in a paragraph the most discussed by farmers. One of the topics of informal discussion was taxation and its effect on land values. A study of the situation from the farmer's standpoint is one of the coming events in this state. The extension of electricity to the farms is another topic of interest and growing interest. But Pennsylvania farmers are more interested in production than any other single topic—for they have good facts and economical production is essential success.

Members of the Federal Farm Board are on programs during the week. They could offer much that was attractive to Pennsylvania producers except cheap money, and that is available except to cooperative organizations. They left the impression that the Board is a big job on its hands and its members are it.

There was heard of deer damage than in recent years. The road problem is still unsolved, those not located on main highways and they do not know what and when. There is no opinion to the policies whereby the state and sportsmen are acquiring lands not suited to agriculture.

Agricultural education and extension are more needed than ever before. Warnings were sounded that as competing farmers become better organized in other regions our farmers must become more competent on marketing, but continue in ability to compete with distant products was expressed also.

Entries Largest on Record

Thirty-three fruit growers from twelve counties exhibited this year. The fruit was of unusual good quality, considering the rather unfavorable season for the crop during 1929.

Over 200 entries were reported in the potato contest with the quality better than in the previous show. The number of entries was slightly larger than a year ago. Seventy exhibits were held by 400-Bushel Club members.

The hundred and five fleeces made up the wool exhibit, which was twice as large as the 1929 show. The show included 35 bred Duroc-Jersey, Shire, Chester White and Poland-China sows. There were 200 entries of canned goods, jellies, dry products and garments. Since this is only the second year for the home economics display, enormous growth of interest in this feature is indicated.

The corn show consisted of 508 ten-ear entries and 50 single ear entries. This is a slightly larger show than a year previous.

The hundred and forty entries made up the dry display. Twenty entries made up the maple syrup exhibit. Fifty-one single entries and 11 cup displays made up the vegetable exhibits. This is twice the size of the 1929 show.

Twenty-two entries of wheat, buckwheat, rye, timothy seed and soy beans made up the display of small grains. This exhibit is one-third larger than the previous show.

The poultry exhibit was the largest in the history of the show. Over 1,400 birds were entered, of which were turkeys.

Kings and Queens

Two years ago Secretary Jordan began tentatively the general Tuesday evening meeting of the week the honoring of outstanding farmers from the state from the standpoint of production, showing the same custom this year special recognition was given to H. A. Snyder of Montoursville, Lycoming county, as the man having accomplished an outstanding record in dairying. For two successive years Mr. Snyder has succeeded in keeping the average production of his herd above 500 pounds of butterfat, the only dairy herd in this state to have accomplished this feat two years in succession.

G. C. Birdsall of Susquehanna county was given special recognition for having produced the largest litter of pigs at six months of age ever recorded in this state. A litter of 17 pigs farrowed last spring on his farm weighed at the 180-day mark 3,987 pounds, or almost two tons.

The potato king for 1929 was Henry Y. High of Bucks county who had the highest acre yield of spuds for the year, the yield being 629.4 bushels.

To Mrs. Florence Lohr Johnson of Boswell, Somerset county, recognition was given for her outstanding work in the line of raising turkeys. The flock of her father's farm, of which she took charge, had almost 3,000 turkeys in 1929, and was one of the largest flocks in the eastern half of the United States.

Besides honoring these folks for their fine accomplishments the program of this general meeting consisted of an address by Congressman John C. Ketcham of Michigan, who spoke on "What We May Expect of the Federal Farm Board." Short addresses were given by Dean R. L. Watts of State College and Lindlay Dennis of the Department of Vocational Education at Harrisburg. Entertaining features were rendered by members of the vocational teaching staff.

Council of Farm Organizations

The predominating sentiment expressed at the meeting of the State Council of Farm Organizations held Thursday afternoon, January 23, was in favor of continuing the Farm Products Show in January. Some of the livestock organizations endorsed the idea of working out a livestock show for the fall season if conditions faced by the Show Commission warrant this procedure. Other matters of discussion included Rural Electrification, Taxation, Casualty Insurance, Appropriations for State College and Game Regulations.

A committee of the Council has been working for three years with a committee representing the Pennsylvania Electrical Association, the two committees being known as the Pennsylvania Joint Committee on Rural Electrification. The report of the Council committee on this new development was very encouraging.

The Taxation Committee reported having taken a very active part in legislative discussions during the last Legislative Assembly, especially on bills pertaining to license fees or gas tax. This Committee is working on a program of crystallizing rural sentiment in an effort actually to find out what the tax situation is in Pennsylvania, and, as will be evident, the working out of a program that will more nearly equalize taxation.

The officers of the Council, which is composed of three representatives from every state-wide farm organization in the state were all reelected for the coming year. They are: H. D. Allebach, president; John H. Light, vice-president; Miles Horst, secretary-treasurer, and the two additional members of the Executive Committee, C. J. Tyson and F. P. Willis.

Society of Farm Women

Mrs. J. R. Cassel of Lancaster county was re-elected president of the Society of Farm Women of Pennsylvania for the coming year. Mrs. David Reese of Pittsburgh was elected vice-president. Mrs. Harrison Nolt of Lancaster county as secretary, and Mrs. Sam Mohler of Lancaster county, treasurer.

On Tuesday and Wednesday of last week the Society held one of its best attended and most interesting meetings seen at Harrisburg for a number of years. Addresses were interspersed with features of entertainment while a banquet held Tuesday evening brought these women, and those interested in their work, together in a social way.

Addresses were made by Dr. C. G. Jordan, Secretary of Agriculture; J. S. Illick of the State Department of Forests, who spoke on "Farm's Woods," Mrs. Charles Seydell, of Chicago, who spoke on "Farm Women's Contribution to Organized Agriculture," and Miss Grace Barr of Camden, N. J., who spoke on "Music Appreciation in the Home." Miss Anna McDonald, Assistant State Librarian, emphasized the great need for establishing more county libraries throughout the state; Rural Electrification and its problems was discussed by John

M. McKee, executive secretary of the Pennsylvania Joint Committee on Rural Electrification.

Vocational Boys and Girls Win Scholarships

The six \$100 scholarships offered by the State Farm Products Show Commission to six students of Vocational High Schools in the state winning in the annual demonstration contests staged during the Show were as follows: David Warfield, York county; Jos. Greubel, Westmoreland county; Charles Curry, Lebanon county; Frank Shannon, Perry county; Emily Erickson, Westmoreland county, and Mildred Robacker of Wayne county.

While these four boys and two girls took the scholarships, many awards were made during the vocational gathering of 750 vocational boys and girls to winners of the many different projects carried on in vocational schools throughout the state.

In addition to these individual honors different schools competed with one another. Winners among these teams were as follows: 1, Blain vocational school, Perry county. 2, York county vocational school. 3, Edinboro school, Erie county. 4, Derry township school, Westmoreland county. 5, Morrison Cove vocational school, Blair county. 6, Jonestown high school, Lebanon county. 7, St. Thomas vocational school, Franklin county. 8, Robinson township, Allegheny county. 9, Port Allegany, McKean county. 10, Shippensburg high school, Cumberland county.

The winning teams in the home economics demonstration were: 1, West Newton high school, Westmoreland county. 2, Beaver Joint vocational school. 3, Morrison Cove vocational school, Blair county. 4, Green Dreher Joint vocational school, Wayne county.

A 13-Year-Old Girl Champion

Youth asserted itself in the potato show. Mary C. Werner of Bath, Northampton county, not only won the championship among the exhibits in the boys and girls classes but she came through with the grand champion ribbon for the entire potato show consisting of about 300 exhibits. Mary has been growing potatoes for two years as a part of her 4-H Club work. She is a member of the Northampton County Potato Club, consisting of 27 members.

Rural Electrification

The Pennsylvania Joint Committee on Rural Electrification in cooperation with electrical manufacturers staged one of the largest exhibits at the Show featuring electrical equipment for the household.

One of the appliances attracting the most interest was the electric range. Apparently the rural people are coming to understand that with promotional rates offered whereby in most cases current can be purchased for 3c to 4c per K. W. H. for cooking that the electric range is an economical appliance, when the feature of labor-saving and convenience is added to that of the fine quality of foods cooked in this manner. Prices ranged from about \$130 to \$300 depending on the size and finish of the range.

The electric mangle iron also received a great deal of attention from the rural folk for this is one of the heavy duty labor jobs on the farm today. With current figured at 2c to 4c per K. W. H. the cost of operation is comparatively low while the price of this equipment has been much reduced.

The vacuum sweeper, washer, refrigerator and radio did not attract the attention of previous years. Apparently the people are much more familiar with these pieces of equipment and consequently have less questions to ask. Probably no electrical appliance has met with more general favor and achieved the general public recognition so rapidly as the electric refrigerators. Most households find they will average about 40 or 50 K. W. H. of current per month, consequently, resulting in a bill of less than \$2, figuring on the low block of current.

Waffle irons, bread irons, hair curlers, water heaters, radiant heaters, etc., were shown in a most beautiful non-traditional finish but did not receive much attention unless being demonstrated.

At the headquarters booth of the Joint Committee on Rural Electrification, home service demonstrators made coffee, waffles and toast with electrical appliances and handed out samples to those passing by. The response the samples met would seem to indicate that Pennsylvania's farm people like the electrically-cooked foods.

The requests for information as to conditions under which electric service would be extended

were very limited. A distinct change from three years ago when there were a large number of questions of this nature.

The Pennsylvania State College in cooperation with the Joint Committee conducted a feed grinding demonstration using 5 and 7 1/2 h. p. motors with both burr and hammer mills. Those desiring detailed information in this connection should write the Farm Machinery Department of the College for a "Progress Report on the Use of Small Electric Motors for Cutting Fodder, Saving Wood, Grinding Feed."

The application of electricity to farm and household work was in evidence at every point. Practically all stationary equipment was shown for operation with electric motor attachment. Several dairy refrigeration units were of particular interest to the dairymen also the electrically operated milking machines. One could not leave the show without being impressed with the fact that electricity has come to play an important part on the farm.

Over 30,000 Farm Users

The Rural Electrification Exhibit was made possible through the cooperation of the Pennsylvania Joint Committee on Rural Electrification, manufacturers of electric equipment and the Farm Products Show Commission. With over 122,000 customers on rural lines in Pennsylvania of which over 30,000 are farm users and with many more thousand desiring electric service, the problems of rural electrification continue to be of major interest. Persons desiring any information in this connection should communicate with the above Committee, Room 707, Telegraph Building, Harrisburg, and also confer with their local electric light company.

The program of the potato growers was limited this year to two half-day sessions and a banquet. An average attendance of 650 at the two half-day sessions and of 400 at the banquet tells the story of the interest of the potato growers in their meeting.

H. R. Talmage, president of the Long Island Potato Growers' Association, led the marketing discussions on Wednesday afternoon. These dis-

cussions went beyond questions of standardization and grading to problems of meeting the new conditions created by the large scale buying by chain stores. The statement was made that nearby markets may not be as big an advantage to local producers as we sometimes think, not because freight hauls are in their favor but rather that outlying producing sections, because of this advantage, are compelled to produce a better package and better quality, which in the end will bring enough premium over local stuff to pay for the longer freight hauls. The Association appointed a Marketing Committee to work out a program of bringing our good Pennsylvania potatoes to the attention of more Pennsylvania consumers.

At the banquet, which was held in one of the local churches, music, fun and an able address by E. S. Fayard were the outstanding features of the occasion. At this banquet 21 growers received medals for having made the 400-Bushel Club this year for the first time. These medals are awarded annually to all growers who accomplished this feat for the first time. It was reported that the total number of 400-bushel potato growers in the state in 1929 was 81.

Open Discussion

The second half day session, with Dr. E. L. Nixon presiding, was devoted to problems of production and included a summary of the practices followed on the acres making the 400-bushel yield this year. This session, like the former, was one of open discussion in which any man in the audience could ask a question and direct it to any other in the group.

The officers elected for the ensuing year are: R. W. Lohr, president; John Shrope, vice-president; Miles Horst, secretary-treasurer; L. T. Denniston, assistant secretary-treasurer. These with the following men form the Board of Directors of the Association: Wm. H. Mendenhall, Reuben Ringer, John B. Campbell, Robert Getz, Harold Dunn, Charles Beaver, Levi Brubaker.

Vegetable Growers' Meetings

ACHALLENGE! Again the growers from the Philadelphia district have carried home the lion's share of prizes. A well-deserved share, too, for the display included a remarkable collection of extremely high-class produce. Just credit to the Quaker City growers and a challenge to all up-state growers who did not exhibit this year.

In the keen competition in the "Display" class, Wm. G. Wenker, N. M. Comly Sons and H. N. Dudley and Sons, all of Bustleton, placed in the order given. Other prominent names in the list of winners are: A. H. Mende & Sons, Bristol; Andrew Gersch, Bustleton; G. E. Smith, Bethlehem; Yeagle Bros., Bristol; S. Q. Becker, Bristol; E. W. Palzer, Torresdale; A. D. Alburger, Bustleton; F. J. Dempsey, Bustleton; Wm. Stoker, Byberry; L. R. Downing, Downingtown.

In the marketing session W. R. Whitacre of the Bureau of Markets explained how produce market information is secured by field representatives, who daily circulate among the buyers and sellers at the large markets.

C. M. Smith of Lewistown, grower, told how he has developed a great trade in fancy tomatoes packed in 12-quart Climax baskets, bearing his own lithographed label. Mr. Smith is building business in spite of the competition from the west and south.

County Agent H. R. Ely of Allegheny county called attention to the effectiveness of attractive packages and labels, and of genuinely attractive vegetables, in making sales. Studies have revealed that over 85 per cent of all vegetables sold are finally purchased by women, a fact that places additional premium on attractiveness.

Mr. Horace Greener, Philadelphia commission merchant, emphasized the supreme importance of labeling everything we sell. He told how sweet

corn, bearing simple tags with the growers' names, brought 50 cents more per bag.

"I cannot think of a more important thing for a Pennsylvania vegetable grower to do today than to be right here in this meeting session," so observed a business man from outside. Mr. De Loss Walker, who represented the National Chain Store Association.

Mr. Walker urged serious consideration of the fact that while we live in the midst of the greatest markets in the country, we are letting shipments from outside the state take an increasing proportion of the vast sums spent for fresh vegetables.

Better grading, packing, packaging and labeling, plus organization, were mentioned as deserving special attention. Mr. Walker closed: "The solution to your problems in meeting competition, of holding your markets, lies within yourselves. You will prosper or go down on the basis of your own efforts, and your efficiency in adjusting yourselves to changing conditions."

We quote from the comment that followed: "In New Jersey we have determined to meet all comers and hold our own. High yields, quality and giving the buyer what he wants and the way he wants it will be our weapons."

The feature of the Vegetable Growers' Banquet was an address by Henry C. Marquart of Orchard Park, N. Y., master farmer and president of the Vegetable Growers' Association of America. Mr. Marquart urged greater attention to organization on the part of vegetable growers; not organization to ask help from outside, but to standardize and improve our methods.

To illustrate the influence of organization, a story was told of a Negro driver who deftly flicked horse flies from the neck of his mule. When asked to take his whip and flick a

hornet that was sitting on a limb near the nest he objected, "No sah! Dat crowd am organized."

A novel feature of the session devoted to production was a "Variety Election," balloting to determine the varieties most popular with those present. Results follow:

Beans, Yellow Bush—Sure Crop, Pencil Pod, Black Wax, Yellow Bountiful.

Beans, Green Bush—Bountiful, Stringless Green Pod.

Beets—Detroit Dark Red, Crosby's Egyptian.

Cabbage, Early—Copenhagen Market, Golden Acre.

Cabbage, Late—Danish Ballhead, Penn State Ballhead.

Carrot, Early—Chantenay.

Carrot, Late—Danvers Half Long.

Celery, Early—Golden Plume.

Celery, Late—Fordhook.

Sweet Corn—Golden Bantam, Whippoorwill, Yellow, Howling Mob, Stowell's Evergreen.

Cucumber—Long Green, Davis Perfect.

Discuss Fruit Production

The State Horticulture Association of Pennsylvania divided its attention between production and marketing problems. The omnipresent insects and diseases are the bane of the grower and were roundly scored for their devastating designs, while the marketing end was attacked from the angle of improved containers, grading and cooperation.

Branding 1929 as the most chaotic year in a decade in variations from the expected life cycles of insects, Prof. H. E. Hodgkiss, extension entomologist of the Pennsylvania State College, told the Horticultural Association that the most outstanding situation came about on account of a large increase in San Jose scale. Codling moth, plum curculio, oriental fruit moth and apple maggot were other insects causing severe damages in some sections of the state.

Professor Hodgkiss reported that spraying service, built around a selected number of demonstrations, was extended last year to 3,751 apple growers in 34 counties, to 212 cherry growers and to 570 grape growers.

Most Serious Insects

Codling moth is reported by Pennsylvania growers as the most serious insect pest on apples and the Oriental fruit moth on peaches, according to a survey made by the Committee on Insect Pests, which reported its findings.

Sixteen insects were reported as serious on apples by one member. Leading among the insects which do serious damage were the codling moth, with 64 growers reporting; curculio was reported as serious by 54 growers; aphids by 63 growers; red spider by 28 growers; and red bug by 23 growers.

Eleven insects were reported as harmful to the peach crop of Pennsylvania. The Oriental fruit moth was at the head of the list, being mentioned by 73 growers. Several orchardists said the insect had just made its appearance in their orchard. Curculio was given an important place among the serious insects by 46 growers, and peach tree borers by 23 growers.

Omitting the mid-summer application of poison to apple trees gives encouragement to a group of chewing insects, including bud moths, leaf rollers, codling moth and plum curculio, said Professor H. N. Worthley. Counts of drop fruit at State College last year showed that the good results of early sprays were lost by late August where no mid-summer spray was applied.

Apple scab caused a loss of 30 per cent of the 1929 crop in Pennsylvania, according to Dr. R. S. Kirby, extension plant pathologist of State College.

Studies made in 242 orchards last year revealed that where trees received all the recommended sprays there was almost no scab and very little other disease, while in orchards unsprayed there were 87 bushels of scabby apples in every 100 bushels. Other diseases also were present.

Prudication of red cedar trees in the vicinity of apple orchards is the only satisfactory control for apple rust which has been a source of loss in southern counties, according to W. A. McCubbin, Bureau of Plant Industry,

Onions, Dry—Prizetaker, Ebenezer Peas—Thomas Laxton, Gradus Peppers—California Wonder, King, Early Giant.

Radish—Early Scarlet Globe, Red Top Giant.

Spinach—Bloomdale Savoy (early spring), Long Standing Savoy (late spring and later sowings), Virginia Resistant Savoy (fall and winter), Tomato—Bonny Best, Marglobe.

The discussions on plant growing on fertilizing vegetable crops will be reviewed next week.

The newly elected officers are: President, C. M. Smith, Lewistown; secretary-treasurer, Walter E. Nix, State College; directors, Howard A. Jersey Shore; Wm. H. B. Parksburg; H. S. Dudley, Bustleton; W. H. Evans, Plainsville; Ralph Garrahan, Forty Fort; C. L. Pittsburg; Gilbert S. Watts, Balltown; Gilbert S. Watts, Balltown.

Meeting of State Dairy Assn.

DAIRYMEN in this state are centering their attention on quality of product. If we may judge from the full program of the Pennsylvania Dairy-Association and the Pennsylvania Association of Dairy and Milk Inspectors. As usual the dairymen had a banquet, approximately 425 attending the dairy dinner Wednesday, Feb. 1, 1930. F. Schilling, member of the Federal Farm Board, was the principal speaker. Dairymen have shown real interest in their formation of cooperative marketing associations and the larger cities, he said. They proved the leaders in cooperative marketing association work, he asserted.

Eight hundred and twenty-two farm-ers in dairy herd improvement association work have received awards for their accomplishments during the past year. Announcement of these accomplishments were made at the banquet. Blue ribbons will be awarded to 79 pounds of butterfat for the past year. Blue ribbons will be given to 191 men whose herds produced between 400 and 400 pounds of butterfat last year. Red ribbons will be received by farmers whose herds produced between 300 and 350 pounds of butterfat. Last year 725 dairymen received awards in this dairy herd improvement work while five years ago 260 were thus honored.

Undulant Fever

Undulant fever, a disease of humans, which is believed to come from infected livestock, is by no means a new case, according to E. M. Harmon, associate editor of Successful Farming, of Iowa, who addressed the Pennsylvania Dairymen's Association.

No one knows how old it is," Mr. Harmon continued. "Some of our present-day scientists feel that there is reason to believe that a disease which Hippocrates described in about year 400 B. C. was undulant fever."

Regarding the alarmists' information that the disease has been a tinge of sensationalism, and combined with half-truths, has attracted much attention, the speaker asserted as an example a report that there are 50,000 cases in the United States.

As a matter of actual fact, to Jure this year, 1,296 cases have been reported in the United States over a period of seven years and five months," Harmon said. "Doubtless, there are unreported cases today, but when have to go back over a period of seven years to find 1,296 cases realize that most of these are cured by this time. It is hard to see how who values his reputation would and a guess of 50,000 cases.

One of the points which has not given sufficient attention is that pasteurization kills the organism. There is no excuse for any one trying about the contraction of the disease through drinking milk. If he pasteurized milk supply the danger is automatically eliminated. If he has not a pasteurized milk supply and has any fear of contracting the disease organisms can be destroyed by heating the milk to 140 degrees for a twenty minute period in home.

We know that this disease is the

Roast Capon

At 7 p. m. Wednesday evening the annual poultry banquet was held and was attended by over 100 poultrymen who presented, along with their tickets, a good appetite for roast capon and all the fixings.

Prof. E. M. Funk, of the Pennsylvania State College poultry department, said there was 25 per cent increase in production in Pennsylvania last year. During the past year, Pro-

source of the greatest single loss to the dairy industry. The Storrs Experiment Station has shown a loss of approximately \$44 per cow for every reacting animal whether she aborted or not. The Nebraska Station has shown losses of approximately \$100 per cow for each year that the cows lost their calves. These figures check closely as it is probably true that reacting animals abort about 40 per cent of the time. Studies by the Oregon Station check this fairly closely as do investigations on individual farms. No one knows how prevalent it is. Most estimates run above 20 per cent. If 20 per cent of our dairy cows are losing \$40 per animal the loss to the dairy industry is approximately \$175,000,000 a year. The fact that it is transmissible to humans is simply one more reason why the livestock industry of the country must come to itself and eliminate these tremendous losses.

At the business meeting the following officers were reelected: President, R. F. Brinton, West Chester; vice-president, Dr. L. M. Thompson, Montrose; secretary-treasurer, R. H. Olmstead, State College.

Poultry

THE increased interest in turkey growing was recognized by the Pennsylvania State Poultry Association and the State Baby Chick Association by devoting a half day to the care and culture of this famous American bird. Modern methods of growing turkeys was discussed by Prof. W. H. Rice of the University of Maryland, while Claud Irons of Linesville gave his personal experience in turkey production and Robert Lohr of Boswell spoke on the advantage of raising turkeys in confinement. Mr. Lohr raised a flock of some 3,000 head last year, starting them on clover pasture.

The poultry exhibits at the Pennsylvania State Farm Products Show were the largest and of the best quality ever exhibited. This year, for the first time, an unusually fine exhibit of turkeys was on display. Since the guess work has been removed from turkey raising this field of poultry production seems destined to become one of major importance in Pennsylvania. Never before was such quality apparent in the egg exhibits. Extreme care was used by most exhibitors in their selection of single and five dozen exhibits of eggs. The benefits from the Egg Show are difficult to evaluate but it can be said that they are many. When farmers and poultrymen learn to select eggs of good quality, size, shape and color, and set in their incubators only eggs with such qualities, then improvement will result. Pennsylvania poultrymen know their eggs.

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Prof. E. M. Funk, of the Pennsylvania State College poultry department, said there was 25 per cent increase in production in Pennsylvania last year. During the past year, Pro-

fessor Funk stated, an experiment was started in applying the confinement method of management to turkey growing. Ninety-three per cent of all turkeys started were raised to market age, with good results obtained under the confined conditions in gains and returns over feed cost.

Sanitation in chick raising as practiced by poultrymen of Pennsylvania should reduce death of chicks and make for more economical production of pullets. D. C. Henderson, extension poultry specialist of State College, told members of the State Baby Chick Association.

With 159 Keystone poultrymen reporting last year, the average mortality of baby chicks was 15 per cent. Where none of the five recommended clean practices was followed, such as early hatching, clean chicks, clean grounds or partial or complete confinement, clean feed and clean brooder houses, the chick deaths were nearly 30 per cent.

Poultry Outlook

The national poultry outlook for 1930 is a promising one, with no great change over the 1929 situation, Harry R. Lewis, president of the National Poultry Council, stated in an address before the Pennsylvania State Poultry Association.

On Thursday morning Professor Lewis took for the subject of his address, "The Poultry Outlook for 1930." He stated that since 1903 the poultry industry had moved in a four-year cycle—three years of prosperity and one year not so good. The last bad year was in 1927-28. He looked for 1930 and 1931 to be profitable years. Professor Lewis stated that prosperity was dependent on stabilized output and the poultryman should avoid surpluses.

"If anything, there will probably be a continued slight increase in poultry population, with very satisfactory prices prevailing for eggs during the

first six months of the year," Mr. Lewis continued.

"The most serious situation facing the poultry producers during 1930 is the apparent continued heavy losses which poultry growers experience through ravages of disease and parasites. The intensive conditions under which poultry are kept, and the increased volume in which they are kept, brings with it increased responsibility on the part of the poultryman in effectively checking disease losses."

"The poultryman who makes a real financial success of his efforts during 1930 will do so principally through his ability to rear good, strong, healthy birds free from disease and parasites. This can only be done by practicing a strict sanitary program, by keeping his chicks on clean ground and not crowding them. This word of warning should be heeded, if the many advances and financial returns resulting from what now looks to be a most prosperous economic situation, are to be received."

In the afternoon address Professor Lewis spoke on "Promoting the Poultry Industry." He presented in a clear manner the work of the National Poultry Council as an organization composed of representatives of all allied branches of the poultry industry created for the purpose of promoting and protecting the poultry industry.

Directors for three years: H. H. Mitman, Hellertown, Pa., and M. M. West, Lansdale, Pa.

Poultry representative to the State Council of Agricultural Organization—M. A. McKnight.

Legislative Committee—J. P. Logan, DuBois, Pa., chairman; C. R. Misner, Williamsport, Pa.; Henry Hocker, Millville, Pa.; Guy Leader, York, Pa.; Paul Guldin, Yellow House, Pa.

The State Poultry Association elected the following officers: Marcus A. McKnight, Carlisle, president; C. W. Callenbach, State College, secretary-treasurer.

Livestock

SHOW and sales of 4-H Club calves and lambs featured the program of the Pennsylvania Livestock Breeders' Association.

Grand championship showing honors in the beef club exhibits of Lebanon, Cumberland and Dauphin counties were awarded today to George Strook, Cumberland county, P. C. MacKenzie, State College, was the judge. Alton Snyder, Lebanon county, won the reserve grand championship. The grand champion and the reserve grand champion were picked from the top animals among the baby calves shown by boys and girls of the three counties.

In discussing the champion steer Mr. MacKenzie said:

"The champion steer of the Boys' and Girls' Baby Beef Club Show at Harrisburg this year was a pure-bred Hereford, bred by St. Amour Farms, Nortonville, Pa. I would like to mention a few of the outstanding things about this steer. I think he was a very desirable weight, a very deep bodied steer, carrying parallel lines. He was better balanced and carried more condition, wider and thicker through his loins, much wider and deeper through his hind quarters, than the reserve. He was firm, smooth, mellow fleshing and

showed fine handling qualities, indicating a profitable steer. In type he was a steer of strong character, compact and low set, with desirable bone and a good Hereford coat of hair. I wish the boy who fitted him all the luck in the world and hope he continues to feed good steers."

Club Lambs

Clifford Fox, Clinton county, won the grand championship with a pen of three Shropshire lambs in the 4-H lamb club exhibits at the show. The reserve grand champion award went to Edwin Bitner, Centre county, showing a pen of three Southdown lambs.

Shropshire lamb winnings were: First, Clifford Fox, Clinton county; second, Clarence Hay, Centre county; third, Fred Fox, Clinton county; fourth, Richard Fox, Clinton county; and fifth, Charles Harter, Centre county.

Checked winners were as follows: Alice Faust, Centre county, first; Levi Nicholas, Northampton county, second; Florence Brooks, Centre county, third; Fred Lase, Centre county, fourth; Harold Homan, Centre county, fifth, and Lena Nicholas, Northampton county, sixth.

In the Hampshire lamb class the following (Continued on page 15.)



A View of Woodbine Farm showing the old house in which W. D. Zinn was born. See The Story of Woodbine Farm, now running in this paper.

"THE fleet would make a good ad. for that Red Mill concern," he remarked to Tigert.

"How so?" The Captain's nimble grey eyes steadied in a sudden keen look.

"Why, they cry for it like babies for milk. They won't take anything else. A spell back two of them raised a ruction cos you were out and I didn't have the key to the stock-room."

"You lay your mind off'n the Red Mill, an' the stock-room too," retorted Tigert with unexpected fierceness. "I've told you what I want you should do. Keep to that, understand? If I catch you—"

The rattling of the door-latch cut him short and he turned away and slouched into the book-keeper's cage as Mrs. Alfred Blainey and Miss Orianda came in, the former leading her pet collie on a leash.

While Mrs. Blainey was giving her order in elegantly mincing tones Toots' eye happened to stray in Tigert's direction and caught that individual scrutinizing him from under lowered brows with a hostile, suspicious expression. Toots returned the look squarely.

"Anything you want, sir?" he asked.

The Captain growled indistinctly and after a few moments walked into the stock-room, whose thick door he closed behind him.

Mrs. Blainey's collie had pulled itself free from her restraining clutch and was nosing about haughtily. Finally it invaded the private region behind the counter and discovered Hector, who came regularly to the store with Toots, and who had been in a smouldering state ever since his acute nose had detected the collie's presence. In spite of this outrageous intrusion Hector might have expressed his indignation by nothing more than a growl if the other had been willing to accept the reproof, but the collie chose to consider himself insulted and challenged. He attacked Hector instantly and the mongrel eagerly gave fight.

Toots, mounted on a rickety stepladder, was reaching for a package on the top shelf. The vocal ferocities of the dogs and the instant screams of the two women almost caused him to lose his balance, and he did lose it entirely a moment later when the combatants, in the blind rage of battle, hurled themselves against the stepladder. He fell sprawling across the counter, violently knocking askew in transit the hat of Mrs. Blainey, who was endeavoring to climb upon this point of safety, while the package of cereal flew from his hand and struck Miss Orianda upon her aristocratic nose.

Without stopping to consider these casualties he jumped from the counter and filling the big flour scoop from the barrel he threw its contents into the faces of the two dogs. Blinded and choking they separated to paw the flour out of their eyes. Toots seized the collie by the scruff of his neck and dragging him to the street door, flung him forth upon the sidewalk.

Mrs. Blainey and Miss Orianda faced him like irate turkeys. Their two tongues made such a clatter that Toots could hardly understand what they were saying, but he clearly gathered that the purport of it was uncompromising. Mrs. Blainey's hat hung rakishly over one ear and Miss Orianda's nose was red. Considering that he was to blame for both these effects he should not have smiled, but he did, and threw oil on the flames of their wrath by so doing. In the midst of it the stock-room door opened and Tigert entered. Mrs. Blainey turned upon him at once.

"I never was so outrageously treated in my life," she stormed. "Look at me! Look at my hat! I might have had my skull fractured. And my poor dog half killed by that nasty mongrel. If this is the sort of person you leave in charge of your store I shall give my custom elsewhere, Tigert."

WITH their heads in the air the two women left the store, slamming the door smartly behind them.

Tigert looked at Toots angrily. "Now what's this all about?" he said coarsely. "Here's a pretty kettle of fish. Turn my back for a minute an' you insult two of the best ladies of this town—or stick your nose into what don't concern you. You an' your questions about flour."

"I'm beginning to see light about that," remarked Toots pointedly. "And look here, Capt'n. You can't haze me any more. Give me my two hundred dollars. I'm quitting here and now."

He walked across the floor and took down his hat from the nail where it hung, Hector following obediently at his heels.

Tigert's gaze flicked for an instant. Something peculiar and ferocious came into it. "Your what?" he ejaculated slowly, as if he were not thinking of what he said. His whole face suddenly hardened. He uttered a short, barking laugh. "Where'd you get that notion? Why you young liar, you never gave me a cent of your money, if you ever had any, which I doubt."

Even in the midst of his dismay it struck Toots

A Thinking Job

By Fisher Ames

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as curious that somehow he should feel no great surprise; as if the suspicion that Tigert was capable of such a trick had not been far away from his mind all the time.

"You know you took my two hundred," he said. "It's in the safe, if you haven't spent it. If you have, you've got to give me the money just the same."

If I'd taken your money wouldn't you have asked a receipt for it? Wouldn't anybody?" grinned Tigert. "Two hundred dollars, eh. Where'd you get that much I'd like to know? Look out, young feller, or folks'll think you're crazy. I paid you your salary yesterday an' that's all you'll get from me."

"You're a thief," cried Toots. "I'll tell everybody you are."

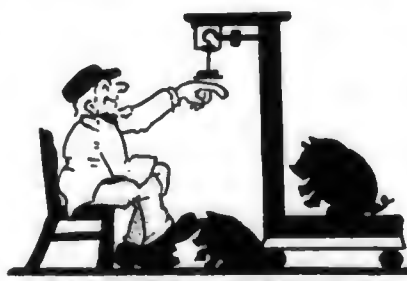
Tigert grasped him by the shoulders and propelled him violently through the doorway and out on the sidewalk in the same ignominious fashion in which the collie's exit had been conducted. "If I hear you makin' any fuss about this I'll have you arrested," he threatened. "Judge Newton knows how to handle hoboos like you. This town is sick of your sort."

He shut the door and Toots, after a hesitating look at it, walked away with Hector at his heels.

Tigert, the solid resident and prominent store-keeper, was safe against any accusation of theft that a wandering, unaccounted-for character like himself could bring against him. Judge Newton was known to be a hard man with no fondness for cystemen or tramps, or anyone who was not a householder. What a fool he had been not to get a receipt for his two hundred. That error was going to make its recovery difficult; but Toots had no intention of letting Tigert get away with such a crude piece of knavery.

On his way to Daddy Simons' he met Mark Crumb, an oysterman whom he had seen in the store more than once. They passed with a nod of recognition, but an idea occurred to Toots, and retracing his steps he overtook the idly strolling sailor.

The Cheerful Plowman



BANISHING SUSPICIONS

I USED to be suspicious of the butcher and his aid; by methods surreptitious I believed they made the grade. "Those fellows are too clever," I was very prone to say, "so I know I must endeavor to defeat them by the way." "And the grocer and assistants, all of those," I said with zeal, "would offer small resistance to temptation live and real!" And the miller, I am certain, I was often known to state, "on his conscience has a curtain of a rather heavy weight! And the elevator fellow, he's the worst of all the bunch, all my barley ripe and yellow, I've a very certain hunch, he would weigh out slim and falsely on his tricky wagon scales, so my prudence checks and halts me when to him I'm making sales."

Yes, I classed them all as sinners, all as pretty, petty thieves, ready all to swipe my dinners and slip dollars up their sleeves. So for years I weighed each gander and each pizgie and each hen, each parsnip and oleander, weighed each one again, again, ere I took it in to market, ere I took it from the farm, on the little scales I'd park it and I'd weigh it like a charm.

Years went by, good years a-plenty, yet in all that time, I vow, amongst those dealers, twelve or twenty, buying grain, or pig, or cow, selling prunes or salted fishes, selling specials, buying runts, buying ducks or selling dishes, I was never cheated once! "What's the use and what the dickens?" I at last was forced to say, "why weigh out my beans and chickens in this mean and toilsome way?" So I quit my fool suspicions, threw away my scales in haste; now I give to worthy missions all the time I used to waste!

"Mean day," he observed, falling into step with the other.

"I was just thinkin' it was a pretty fine one to be wasted ashore," Crumb solemnly.

Toots surveyed the sky and found it blue and cloudless. "Well—I've got Tigert's," he said, with perhaps more relevance than appeared on the surface.

Crumb was gravely interested. He was an unsmiling person—and he briefly sketched the causes of the downfall. He omitted any reference to the two hundred dollars.

"What I wanted to say," he added, "is, could you give me a job, Capt'n Crumb? You know I sailed with Mr. Rose and I can work 'most any of the boats round here. Sharpies and bug-eyes mean, I can run a gasoline engine too. Ask Mr. Rose."

Crumb scratched his chin through its short black beard. It was a hopeful sign that he appeared to ruminate. Toots struck while the iron was warm. "I don't want more'n I'm worth," he said shyly. "Try me out, Capt'n, and then you can arrange with me to pay me. I've just got to have a job. Mr. Rose promised to take me back when he sails, but reckon that won't be for some time."

"Is that so, that you got Tigert to fix up all store?" asked Crumb. "Letter the shelves an' that?"

"Yes sir. I had to have some way of making easy at the start."

"Easy for the customers too," said Crumb. "I never got waited on at Tigert's less'n half an hour before. Well, I dunno. My brother Elder down with pains in his back an' there's no tellin' how long he'll be crippled. I might take you for a spell. Maybe that's as long as you'll like. Go to night?"

"Sure, Capt'n. I'll meet you any time you say. 'Call it five, at the landin'." Sharp.

Well, it was better to have a job than to be without one. Nevertheless as he turned back Toots began to look at himself more impersonally than he has habit. Except for the interval at the Brown View Hotel a low valuation had always been put on his services. As a matter of fact he himself had always been ready to do this, and certainly no man had ever disputed his own estimate of his worth. Money was not everything by any means. He could not see himself in a position when he was ever think that, it was not in his blood, but it occurred to him that life would be easier if he possessed the ability to earn a fair salary. Being good boatman was not enough; there was nothing unusual in that. As a specialty it was not profitable. He recalled again how the Colonel had emphasized the importance of reading, of getting by knowledge and applying it. Jack Rose had learned to know the human body, its muscles and how to develop them properly, and he had explored this knowledge in a definitely scientific way through his gymnasium appliances. Rose's mind wasn't brilliant that there was danger of its setting in to any river, but Rose had been sufficiently clever to master a subject and capitalize it.

HE must begin to keep his eyes open for a future path that wasn't just the easy downhill one. Toots mused as he walked toward Daddy Simons. Thoughts of Tigert and the two hundred dollars also racked him. He was going to get his money back somehow. He didn't intend to let that put anything like that over on him. There was way perhaps—he wasn't quite sure of his ground, but the thing was worth trying. Yes, he believed he was justified in doing it—justified in every way. The fellow was a law-breaker in more ways than one.

Toots stopped the first person he met, who happened to be Mr. Joe Hoskins, the canine expert, and drew him mysteriously aside. "Look here," he said. "Want to take part in a little surprise party?"

Joe was instantly all attention. "What's that, who on?" he asked.

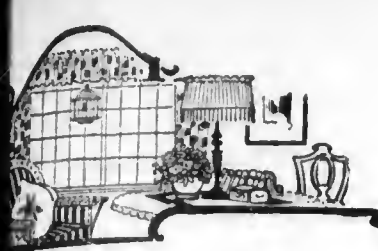
"Ssh! Don't talk so loud. On Capt'n Tigert, think—mind you I'm not sure—I think he's got something worth seeing in his stock-room. Somethin' he don't want anyone to see or even know he's got, but we've got the right to. Everybody in this town's got a right to know. In fact it's my duty to find out about it."

A duty of this description seemed one of the order to Hoskins. He spat briskly and rubbed his hand across his mouth as if by doing so he was a full official toilet as investigator into his neighbor's affairs. Then his expression changed. He looked dubious.

"I reckon I don't get your drift," he remarked. "What could Tigert have that we-all got a right to see? I ain't heard anythin' to that effect. What's so mysterious about it?"

"I can't explain now," said Toots. "But you can with me and you'll see something. You won't go into trouble. I'll do the talking and all you need do is follow."

(To be continued.)



A Week of Thrills

By GERTRUDE S. STEWART

AGRICULTURAL Week in New Jersey was one round of thrills for the ambitious and alert rural wife and mother. The weather none too promising on any morning but the words of eager attendants at the various phases of life and the enlarged view points never seemed to notice the fogs nor occasional down-pours.

The visits connected with the state's museum historical spots were enjoyed by all. The trips industrial plants brought us into contact with the phases of life and the enlarged view points rich in food for future thought over the iron-board or while darning the family socks. A complete change of scenery is always very restful and invigorating.

"Household Hints"

We hope you may find at least one new idea in the little tips which visiting delegates exchanged at the opening dinner. Then guests in the home remain over a second day an attractive way to mark the napkins place at each cover one-fourth yard of wide ribbon, a different color for each place. They have great fun tying the bows close to the first meal and the table looks like a spring flower garden.

A little rubber dish scraper at the "five-ten" and use it to save hard dish-washing and to scrape the dishes.

Can avoid scraping carrots by scrubbing them well and boil till just tender. Plunge cold water and the skins rub off easily. Proceed to dress them up in any preferred way.

When baked white or sweet potatoes are turned the oven off, and leave them in for ten minutes longer. Then the skins can be moved easily and with little or no waste. I hear a number of you say, "Easy to say but how do we do it in our wood or ranges?" You can use the warming oven if have one or open wide the oven door.

Narrow shelves under the kitchen sink provide a good place for overshoes if there is no stairs closet.

Little starch added to the last rinse water on days will give the table and bed linens a very finish, when the ironing is done. Wearing other than underwear is helped also by this plan.

Home-made floor wax consists of one-pound bees' wax, one-eighth pound paraffin, pint of turpentine.

Use your rolling pin with a child's white rag if you wish to avoid the usual sticking. A piece of clean canvas is a better working surface than a floured board, too.

Bleberries that Are Large as Queen Anne Cherries

was a real treat to hear Miss Elizabeth C. of New Lisbon, N. J., tell of her twenty days in adventuring with huckleberries. I was impressed with the fact that although she never father had in mind the splendid idea of using the ordinary swamp huckleberry, yet her great inspiration came from close study of the town's got a right to know. In fact it's my duty to find out about it."

A duty of this description seemed one of the order to Hoskins. He spat briskly and rubbed his hand across his mouth as if by doing so he was a full official toilet as investigator into his neighbor's affairs. Then his expression changed. He looked dubious.

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(To be continued.)

The Farm Home



Beats Jack Horner

THERE is competition in the pie business, just as in all others, and I am afraid Jack Horner has lost first place. The one I am telling you about was baked last September at Albion, N. Y., under the auspices of the Orleans County Agricultural Society.

Once in my lifetime, I helped bake six hundred hot biscuits for the wounded veterans of several wards. They were being given a honey-biscuit feast on Valentine's Day at the hospital. Our famous Congresswoman, Mrs. Edith Rogers of Massachusetts looked on and thought it an impossible task. What would she think about this huge pie? Surely that great lot of biscuits seems trifling in comparison.

We used the huge ovens in the hospital kitchens, but here a special oven had to be built. It was fourteen feet square, and forty-two inches high. It used two tons of concrete in the making, and one ton of steel reinforcing. Ten gas burners five feet long heated the huge oven, which had to be preheated for two days.

It was one of America's favorites—a good old apple pie. Imagine if you can a twelve-foot pie holding one hundred twenty-five bushel baskets of prepared apples which were raked into position with a specially made rake. Five hundred pounds of sugar, four hundred fifty pounds of lard, fifty pounds of salt, five gallons of lemon juice, and I nearly forgot—six hundred pounds of best flour, all went into that master pie. And it was delicious. So said the vast throng who got a taste at ten cents a slice.

Doesn't that sound like a fish story? Well, it isn't. It's a really true pie story and it makes me hungry to be writing about it.

Split Pea Souffle

THE combination of several eggs with the puree obtained from cooked split peas makes this a hearty enough dish for lunch or supper. Serve it with a crisp raw vegetable salad. The recipe is from the Bureau of Home Economics.

Four eggs, one-half cup green split peas, one and one-half cups water, one cup milk, two tablespoons flour three tablespoons butter, four tablespoons fine cut celery, two tablespoons fine cut onion, three tablespoons fine cut parsley, one and one-fourth teaspoons salt, one-eighth teaspoon pepper, several dashes tabasco.

Wash the split peas. Soak them in one cup of the water overnight. In the morning, add the remaining water to the soaked peas and cook until very soft. Press through a fine sieve. Cook the celery and the onion in the butter for a few minutes. Stir in the flour until thoroughly mixed, then add the milk, and cook until thick. Pour the hot mixture into the well-beaten egg yolks. Add the pea puree and the other seasonings. Fold in the stiffly beaten egg whites. Bake in a buttered dish in a very moderate oven (300 degrees F.) for about one hour, or until set in the middle. Serve at once.

Timely Tips

Beaten egg white with the little tots' orange juice is often enjoyed by them, and is quite beneficial, too.

We find the toothpick a sanitary and efficient implement to "try" cakes, instead of the old-fashioned broom-splint.

Plan your meals ahead of time, at least the night before. The day's work gets under way better with a pre-conceived plan.

Once a week, or as often as you can, take an afternoon "off," just to do what you want to do. You will find stimulation and pleasure, the general tone of your work will be higher. You will accomplish more in the end.

Glycerin and rosewater should be rubbed generously and well between the eyebrows ten minutes before one attempts to pluck the eyebrows with tweezers. This preparation will make the plucking easy and painless.

size, flavor, content, texture, skin, etc. Let us get out of time-worn paths and, like Miss White, go adventuring. Our lives will take on new interests, and the world will be a better place for our having been here.

The Wholesome Family

Dr. Caroline B. Zachry, psychologist in one of New Jersey's Teachers' Colleges, outlined for us the essentials of a wholesome family life. You will like to cut this out and tack it by your calendar or where you can see it often.

1. The home must be a place where everyone concerned can accomplish the inborn desire to do things.

2. There must be such a feeling in the home atmosphere that every one feels accepted, needed, and wanted in the group. This she thinks the "crucial point" of wholesome family life.

3. The daily living must be such that proper behavior patterns are ever in evidence. In a future story we hope to enlarge upon this subject.

No Back-Seat Driving

One of the Master Farmers who was given his award during Trenton Week asked that his wife



Here you see the famous chef (inset) H. S. King, of Rochester, N. Y., who managed the world's biggest pie. Note the huge rolling pin which was five and one-half feet long, eight inches in diameter and weighed seventy-five pounds.

be given as much credit for their honor as he was getting. He said she never did any back-seat driving, but was always "by his side." He gave great praise also to his county agent whom he said had been of great assistance to him. It was his custom to take his farm troubles to the county agent, and he never failed him. If the problem was beyond the two of them, they fell back on the State Experiment Farm.

Boost Your Own Business

Mrs. Charles W. Sewell, National Chairman of the Home and Community Department in the great Federation of Farm Bureau work wonders why it is that so many farmers hang back from being Farm Bureau workers and thereby in the greatest possible way advertise their own business.

She recalled how thirty-two years ago she and Mr. Sewell, after just being married, hung their heads when asked their business, and dodged the question if at all possible. If it could not be evaded, they would reply, "We don't really have a business; we're just farmers." Too many of us have kept that attitude. When we all awake to the fact that it is the greatest business on earth, rural life will know better living.

Farm organizations are yours to help you better your own business. Do you let them do that for you? Women have a great part to play in the home attitude toward Farm Bureau and other farm organs that bring the farm into the limelight of this nation's business. Never say die. Keep thinking, working and hoping toward your own and your neighbor's broadened life.

AN EARLY START

START the baby very early in the things you want him to grow up doing. For instance, teach him to eat the bread crusts as well as the bread. When he is able to toddle about, spreading his toys, teach him to pick up the toys after he finishes playing with them. Teach him to look both ways before crossing the street. Look to the left first. Teach him to beat time to music. This instills rhythm.

M. C. B.

Little Drops of Water

By GRACE SHEARER

There was once a county superintendent of schools who was as kindly and good a man as one may find. He had an old maple desk where he spent most of his waking hours. It was a serviceable desk except for one drawer, which worked only at times. Usually all the pulling and coaxing in the world would not induce this drawer to open more than a few inches. On these occasions the contents had to be removed one at a time in the most exasperating manner. The drawer was often examined but never corrected.

The superintendent grew old and grey in service, his nerves grew less steady and his temper less certain.

One day when the drawer refused to work, his secretary, a kind and patient soul, suggested that he have a new desk ordered. Before taking time to consider the extra expense to his county, as was his custom, he ordered the new desk.

Papers and everything were transferred from the old to the new desk. The superintendent sat down and tried each drawer and one after the other moved smoothly, silently. The man breathed a contented sigh and began work. His secretary, a woman of vision, smiled a knowing smile and went back to her work.

Now the superintendent delights to tell his friends how much benefit he is deriving from a course of physical culture. His secretary smiles!

Catalogue Your Troubles

Have you ever noticed a change in the disposition of another? Always another, of course! To what do you ascribe this change? You do not know? It may be some real trouble, but happily not often. It may be caused by both large and small troubles combined, but more often it is caused by numerous small troubles.

Why not be (like the secretary) a woman of vision? Hunt out the small troubles and correct them now while the disposition is still sweet, the nerves steady and the temper under control. Winter is a splendid time to begin. Those little noises, those small inconveniences that wear our nerves and spoil our sunny dispositions, let us hunt them out. Which board in the floor creaks each time we step on it? Which window rattles? Which shutter rattles when the wind blows?

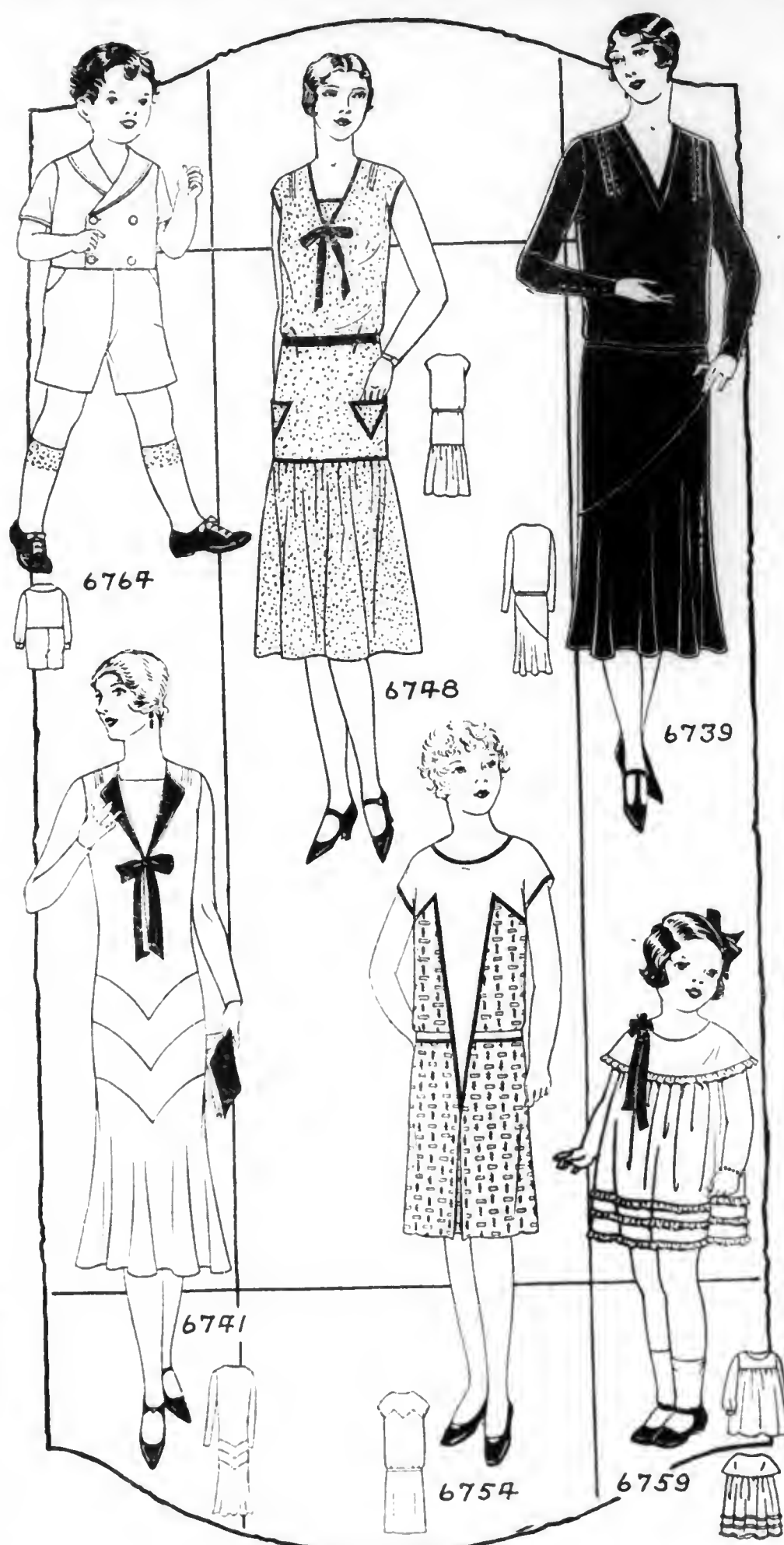
Don't Wait Until Spring

Why do we, day after day, grope in a dark pantry when a small inexpensive light would end the necessity? Why look at a picture askew? Why be compelled to gather up the daily newspaper after it is read each day? Why be forever tearing clothes on the nails in the closet when hangers are so very inexpensive? Would it not be easier to hunt out all these small troubles and cure them before we ourselves become incurable?

Needless to say, it is the woman of the house who suffers most from these small, unnecessary worries, but it is she who is least able to cure them.

Why cannot the man of the house take a day and cure most of these troubles? At this time of the year there are few better uses to which he could put his time. Then while he is at it let him take a little time to mend some things for himself. Why not fix the door of the coal bin so that coal is not spilled all over the cellar floor, oil the hinges of the creaking doors, fix the handle of the hay fork, and don't forget to order a couple dozen new ash trays to complete the good work?

Wait not until you are buried in the regular spring work and cannot afford to take the time. But do it now. Mend all the little troubles so that the woman of the house may have a happier life and be able to add more to the comfort and general well being of the whole family.



Short Sleeves Again

No. 6764.—V-necked, tweed, flannel and sturdy wash fabrics are recommended for this pleasing model. The blouse is made with double-breasted fronts, and a broad collar. The trousers show a new pocket arrangement and are made with a fly and side closing.

This pattern is cut in three sizes: 2, 4 and 6 years. To make the suit for a 4-year size will require 1½ yards of 35-inch material. The blouse alone will require 1 yard of 35-inch material. The trousers alone will require ¾ yard 35 inches wide cut crosswise. One-fourth yard is required for the pockets of muslin or lining, cut crosswise.

No. 6748.—One may be busy about the house and yet look trim and neat in a pretty frock made from this model. The long waist portions are joined to gathered flounce sections. Groups of tucks give fullness at the shoulders in the front and a small vestee squares the V neck line.

This pattern is cut in six sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. To make the frock for a 38-inch size will require 2½ yards of material 35 inches wide or wider. For a belt and tie of contrasting material as pictured in the large view, ½ yard is required 35 inches wide and cut crosswise. To finish with bias binding will require ½ yard 1½ inches wide. The width of the skirt at the lower edge with fullness extended is 1½ yards.

No. 6739.—Transparent velvet in a new shade of green was used for this distinctive model. Stitching in self color, and crystal buttons are the only ornaments.

This style is also attractive in cotton crepe or in moire. The waist blouse is slightly above a narrow belt. Shaped yoke sections, deep at the right side are joined to flare skirt portions. A band facing outlines the V neck of the front, and narrow shoulder tucks, give pleasing fullness. The sleeve is a fitted model.

The pattern is cut in eight sizes: 38, 40, 42, 44, 46, 48, 50 and 52 inches bust measure. To make the dress for a 40-inch size will require 5½ yards of 39-inch material. The width at the lower edge with fullness extended is 2½ yards.

No. 6741.—This distinctive model has the molded hip line, and graceful curves in yoke sections, to which a flare flounce is added. A broad vestee is outlined by wide revers. The sleeve is a fitted model. Groups of shoulder tucks trim the front. Crepe back satin, or cotton crepe may be selected for this design. It is also suitable for transparent velvet and for light weight woollens.

The pattern is cut in six sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. To make the dress for a 38-inch size will require 4½ yards of 39-inch material. For revers facings and a tie as illustrated, contrasting material ¾ yard 39 inches wide is required, cut crosswise. The width of the dress at the lower edge with fullness extended is 3½ yards.

6754.—Printed and plain linen are here combined. One could use cotton prints of two colors of plain linen, with binding in a contrasting color. Light weight woollens, such as wool crepe or georgette are also

suggested. The yoke portions are points—the center point extending to the skirt and holding the inverted waist blouses over the sides. The back—above a narrow belt. A pattern of orange and blue pattern with a little of green could be used for this with the blue repeated in the yoke, and green in the binding.

This pattern is cut in four sizes: 12 and 14 years. To make the dress 12-year size as illustrated in the large view will require 5½ yards of material 35 inches wide. To make the dress 14-year size will require 6½ yards 1½ inch wide.

No. 6759.—Chiffon is suggested for this model, with frills of the same material. One could use taffeta, or crepe, or cotton prints. As planned in the large view, the sleeves are gathered in a small front view, the dress is with the sleeves—which are in the style—and without the collar. A development would be in light green, maize colored taffeta, with frills of orange or gray.

The pattern is cut in five sizes: 4, 6, 8, 10 and 12 years. To make the dress 4-year size will require 2 yards of 35-inch material. To make the dress 12-year size will require 2½ yards 35 inches wide. To the dress with frills or ruffles, as illustrated will require ¾ yard of material, crosswise and in strips 1½ inches wide, best finished with picot. The skirt requires 1½ yards of ribbon.

Write your name and address clearly. State number and size of each pattern. Price 15c each, for 25c. Our Fashion Magazine will help in preparing your wardrobe. Copy only 10c. Embroidery pattern 15c extra. Address Pattern Department, Pennsylvania Farmer, 1200 Penn. Ave., Pittsburgh, Pa.

Do You Help Your School Teacher?

By EX-TEACHER

Do you lend a helping hand to district school teacher? If still have a one-room school, are some of the things we, in operation with our teachers, have accomplished for our school during past four years.

First—A small oil stove and old wash boiler in which each puts a can of cooked food to be the noon lunch. The food is prepared by the mothers and it is a great task to repeat it. The cans or glass jars are used.

Second—A parent-teacher organization with monthly programs. We at school to hear our children speak and recite.

Third—We invite the teachers when we have any special treat an evening trip to town or to a picture show or entertainment.

Fourth—We have subscribed several good agricultural and children's papers for supplementary reading and for rainy noons.

Fifth—We have observed and other holidays usually passed in the country.

Sixth—We have almost money for a second-hand piano be used in the school. This has gathered together by exchanging entertainments.

HOUSEHOLD HINTS

When papering with oilcloth, some one work with you. A pasted prepared oilcloth is handled. I made my paste of laundry starch, cooked as for ironing clothes. For a small room two pounds of powdered glue solve it with hot water and with the starch paste.

The radio brought me such a recipe for salmon. One can but such clever curtains as they are. Any kitchen that can accommodate a note of geranium red—and that kitchen can not—should welcome these cheery blooming plants in the windows. Leaves and handle facing are green with blue and a black finishing line.

The pattern provides three pots to wash curtain, or you might prefer on each side in pairs. One might used for a glass door. In any

By the Pleasant Road of Praise

MRS. KINGSLAND looked up with a smile as Mrs. Matthews, worried of face, came around the corner of the house. Suspecting the cause of the frowns she asked as she placed a chair, "How's Dorothy's ironing coming along?"

"Oh, dear!" groaned Mrs. Matthews, "I made her rinse the things and hang them on the line again. Now she's in her room crying. I don't know what to do. She's been weeks doing a little sewing—had to rip two garments and do them over."

"Well, well, poor child! She's had hard time from start to finish. May, you're too particular, my dear," Mrs. Kingsland's kind old face was so tremulous in her desire to attack her neighbor's methods and yet have no offense.

"I am particular. I want her to be perfect in every way."

"But one must remember, you will see, that superiority in a child is very different from superiority in you."

"Yes, but—the essentials! Look at my Margaret! You trained her. I wish you'd give me your method." "Yes, I taught her the essentials. I also taught her what the essentials are—two very different things."

"I don't—"

"That is, I painstakingly taught her to slight and how to slight it," Mrs. Matthews gasped, "You taught her to slight—"

"Yes, to slight the non-essentials. You asked for my method—"

"Yes, begin with sewing—"

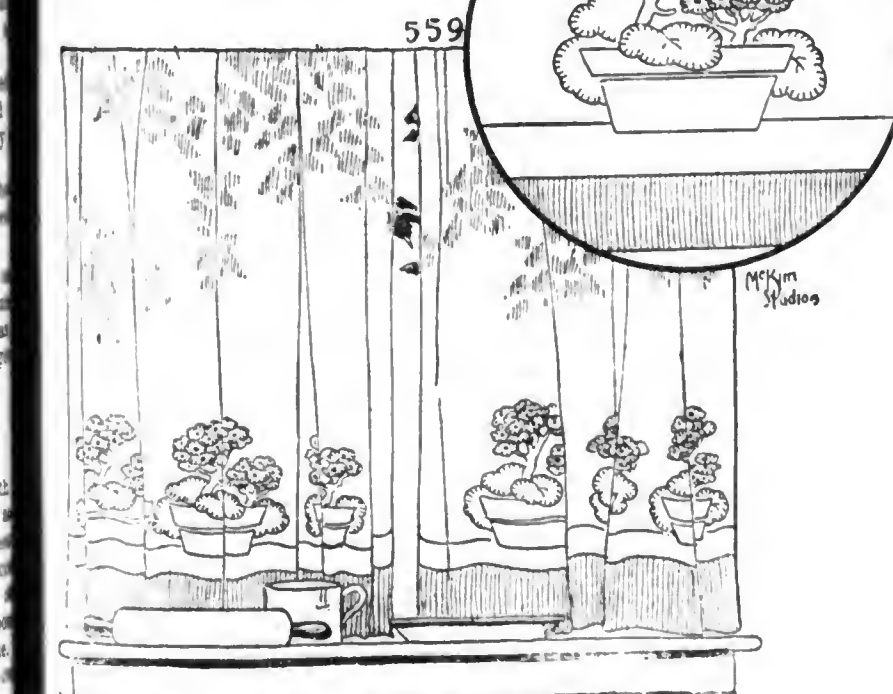
"Almost from babyhood, Margaret wanted to run the sewing-machine."

"So did Dorothy; but, of course, sewing comes first."

"I didn't insist upon it with Margaret. When she was twelve I let her make an apron. I cut it out and showed her how to run the machine. That was all, except that when she asked for help, I gave it, and I made the ironing work you insist upon; but I was well pleased."

"Yes—"

Flowers for Your Kitchen



NO. 559 WAX TRANSFERS

This design is for curtains only, but such clever curtains as they are. Any kitchen that can accommodate a note of geranium red—and that kitchen can not—should welcome these cheery blooming plants in the windows. Leaves and handle facing are green with blue and a black finishing line.

The pattern provides three pots to wash curtain, or you might prefer on each side in pairs. One might used for a glass door. In any

"By the time she was sixteen she had made three complete sets of undergarments, two dresses and many other things. She had learned to sew and had been happy through it all. Wait," and Mrs. Kingsland hastened into the house.

"These tell the story," she said as she came back breathless, a book in her hand. "Her brother took these pictures for me. Here she is in her first apron. See, her age is written beneath."

"Here she is wearing the dresses she made before she was sixteen. And here," Mrs. Kingsland's eyes glowed, "here is a picture of the machine her father gave her on her sixteenth birthday. I remember she threw her arms around his neck and cried, she was so happy. She has that same machine in her own home now."

"Oh, I wish I had tried some such way," cried Mrs. Matthews. "I wonder whether I could make it work now!"

"Of course you could. Begin with those very things on the line. Iron them yourself. Tell her you thought she'd worked hard enough. Then praise some of those she did. I'm sure some of them must be all right."

"They are," Mrs. Matthews' face quivered.

"Now, my dear, my whole method was this: I didn't ask for perfection, and I praised when I could. When I couldn't, I remembered that she was just a little girl preparing herself to do the hardest, but also the noblest work in the world, and I encouraged. Praise and encouragement will carry one far toward perfection—and you yourself say that my Margaret is a perfect housekeeper. She is. She keeps her little home in charming condition. Her three children are clean and sweet and well-behaved; she, herself is cheerful and in good health, and she finds a little time to keep up her music and painting. Just praise, nothing else. You go home and try it."

"I will—and thank you." There were tears in Mrs. Matthews' eyes, but her voice was full of hope.

Praise be for Calumet's Double-Action..



What beautiful cake it makes!

What light cake . . . so fluffy and tender! And Calumet biscuits and muffins, too—they're wonderful! Baking success is easy when you've discovered Calumet—the Double-Acting Baking Powder.

Calumet's first action takes place in the mixing bowl. This gets the leavening properly started. Then, in the oven, the second action occurs—a new, full, steady rising that literally props up the batter until your cake is perfectly baked—even though you may not be able to regulate your oven temperature perfectly.

All baking powders are required by law to be made of pure, wholesome ingredients. But not all are alike in their action. Not all will give you equally fine results in your baking. Calumet is made of exactly the right ingredients in exactly the right proportions to produce perfect leavening action—Double-Action.

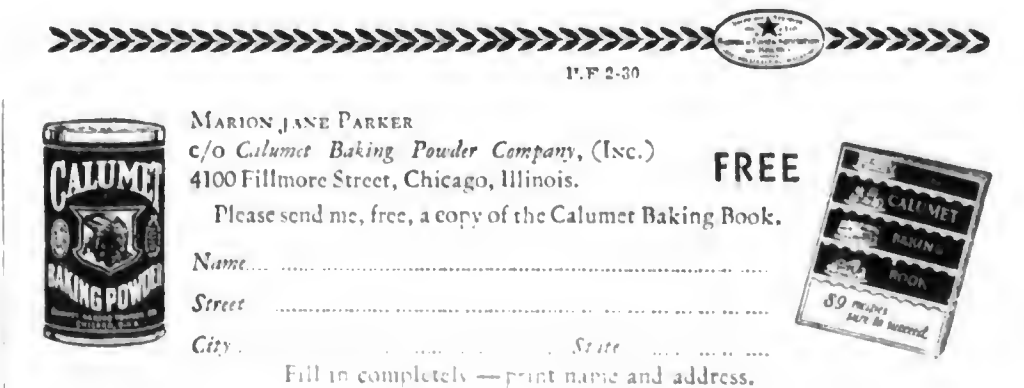
Bake a Calumet cake today. See for yourself why Calumet's Double-Action has made it the most popular baking powder in the world! Use only one level teaspoon of Calumet to a cup of sifted flour. This is the usual Calumet proportion for best results—a real economy too. Send for the new, free Calumet Baking Book.

MAKE THIS TEST

Naturally, when baking, you can't see how Calumet's Double-Action works inside the dough or batter to make it rise. But, by making this simple demonstration with only baking powder and water in a glass, you can see clearly how baking powder acts—and how Calumet acts twice to make your baking better. Put two level teaspoons of Calumet into a glass, add two teaspoons of water, stir rapidly five times and remove the spoon. The tiny, fine bubbles will rise slowly, half filling the glass. This is Calumet's first action—the action that takes place in the mixing bowl when you add liquid to your dry ingredients. After the mixture has entirely stopped rising, stand the glass in a pan of hot water on the stove. In a moment a second rising will start and continue until the mixture reaches the top of the glass. This is Calumet's second action—the action that takes place in the heat of your oven.

Make this test. See Calumet's Double-Action which protects your baking from failure. © 1930 G. F. Corp.

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To Mothers—Muscrole is also made in milder form for babies and small children. Ask for Children's Muscrole.

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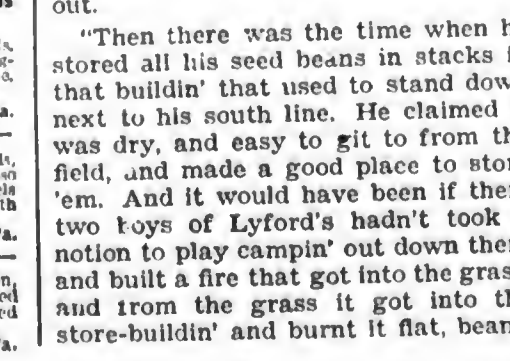
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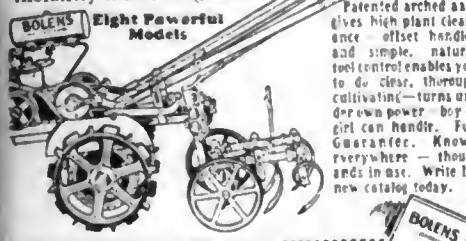
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Markets Discussed

FARMERS' markets bring business to the section of the city in which they are established and thus contribute to the financial welfare of the city. H. A. Hanemann of the Bureau of Markets, Pennsylvania Department of Agriculture, asserted in discussing the need for greater cooperation between the municipality and farmers' markets. Mr. Hanemann addressed the State Association of Markets which convened in the State Chamber of Commerce.

"Municipal authorities should cooperate in every way possible with the farmers' markets so that the utmost of business activity can be stimulated," Mr. Hanemann explained. "Ways in which the authorities can help are numerous. Some cities prohibit parking on the streets from two a. m. to 5 a. m., and right here municipal officials can assist markets. Many farmers arrive at market before 5 a. m., and such prohibition of parking works a hardship on them as they have no place close to the market where they can park their wagons and trucks. A modification of such ordinances permitting parking by farmers within a restricted area near the market before 5 a. m., might encourage more farmers to come to market. A system of permits for parking during the prohibited hours could be worked out cooperatively by the markets and the officials."

"The city health authorities can be of very great aid to markets by cooperating with the managers and stating definitely the kinds of covering and protection which the market company shall require its tenants to use for the maintenance of foods in sanitary condition. The municipal authorities in some cities of the state should also give greater attention to the condition of the streets around a market, and should make greater efforts to keep them clean."

Market Reports

The dissemination of reliable market information has done much to systematize marketing and to prevent the overloading of markets. W. R. Whitacre of the Pennsylvania Bureau of Markets stated.

"It has discouraged the circulation of fictitious reports of market conditions and prices," Mr. Whitacre continued. "It is believed that it stimulates healthy competition, discourages wasteful and unfair practices, and generally helps in raising the efficiency of the fruit and vegetable industry."

Women Addressed

Better living conditions for the American farm family are in sight, if the promise of economic improvement held forth by the Agricultural Marketing Act is fulfilled. This is the vision of Mrs. Charles W. Sewell, Director of Home and Community Work for the American Farm Bureau Federation, who spoke at the meeting of the Society of Farm Women of Pennsylvania.

"If the things hoped for under the new Marketing Act materialize," said Mrs. Sewell, "the increased income for the farm family will be soon translated into better standards of home life. It is well known that when farm incomes are small, the effect is first felt in the farm home, and so the things that produce no money return are eliminated from the family life. When the promised relief reaches the farmer's pocketbook, all this should be changed."

Mrs. Sewell defined the purpose of the Home and Community Department of the American Farm Bureau Federation as "to interest, inform and enlist all farm families in an effort to secure an adequate standard of living."

"The time is opportune for every sincere friend of agriculture to change front and 'talk up' agriculture instead of talking it down as has been done so generally in recent years," Congressman John C. Ketcham of Michigan stated in his address at the opening meeting of the Farm Show.

"No business could have survived the harsh things said of it by those actually engaged in it," Mr. Ketcham continued.

"Anything that legislation cannot do—everything for agriculture, it is futile to assert that nothing can be done," the Congressman said, in discussing the subject "What Can the New Farm Board Do for Agriculture?"

"Federal legislation has made advantages possible for particular groups and it is but natural that agriculture should make its appeal and that Con-

gress has passed the Relief Bill in answer to it.

"We can hope from the Agricultural Marketing Act all that can possibly be done for agriculture by brains, power and money."

Theory of the Act

"In marketing the farmer has been to a great disadvantage. For the most part he has operated as an individual competing with the united and well financed group of distributors. He has virtually taken the distributor's offer. This is not in accord with modern business practices. It is the theory of the Marketing Act that agriculture should have the right to take its finished product into which has been put its time, money and brains, and carry it over to the ultimate consumer along with all the pride of production which it has put into the production enterprise and lay it down before the ultimate consumer with the same pride that industry has in its finished product and to say to the consumer: 'Here is the kind of thing we produce and here it is laid down to you directly by those of us who have a real interest in it from the very time of its planting and production down to the time it is delivered to you.'"

"It is a matter of great encouragement that there are today more than two million farmers in the United States associated together in approximately twelve thousand five hundred cooperative organizations. The difficulty with these organizations is that their usefulness has been particularly restricted to economies in the assembling, and in some instances processing of the commodity, in their local community. Only in a few cases have they attained enough financial strength and experience to enable them to be a factor in the general price situation of the commodity. They have lacked the strength that would inevitably come from an organization representative of the whole commodity."

"Self-help and farmer control under the encouragement of the Farm Board is the real heart of the new law. It can do little for the farmer unless he cooperates actively."

George H. Etien, Philadelphia, was re-elected president of the State Association of Markets, in its annual Farm Show convention. H. L. Shank, Lancaster, was named vice-president, and H. A. Hanemann, of the Pennsylvania Bureau of Markets, Harrisburg, will continue as secretary-treasurer.

As a result of a talk by Thomas C. Mirkl, publicity director of the State Chamber of Commerce, the Association appointed a committee which will endeavor to get all farmers' markets in Pennsylvania to adopt a state-wide cooperative advertising program.

H. S. Throm of Reading talked on the necessity of modernizing all farmers' markets as a step in increasing trade.

A committee to undertake a state-wide advertising program was named as follows: H. L. Shank, Lancaster; Chas. N. Walmer, Harrisburg; Chas. K. Diek, Reading; H. A. Hanemann, Harrisburg.

JOHN SHOENER, Orwigsburg, was re-elected president of the Association of Members of the Former State Board of Agriculture and Institute Lecturers in its annual meeting. R. W. Lohr, Doswell, was renamed secretary.

THE Pennsylvania Nurserymen's Association in annual convention here elected the following officers: President, Lester W. Needham, Weiser Park; vice-president, Lewis U. Straussberger, Flourtown; secretary, Floyd S. Platt, Morrisville, and treasurer, Albert Meehan, Dresher. Seventy-five nurserymen attended the meeting.

J. N. Knull, entomologist of the Bureau of Plant Industry, Pennsylvania Department of Agriculture, was elected president of the Entomological Society of Pennsylvania in its Farm Show convention. H. N. Worthley of the Pennsylvania State College was named secretary.

THE Pennsylvania Beekeepers' Association elected for its president Dr. H. A. Surface, Selinsgrove; vice-president, E. J. Anderson, State College; secretary-treasurer, Charles N. Greene, Harrisburg.

THE Pennsylvania Threshermen and Farmers' Protective Association in its business meeting elected the follow-

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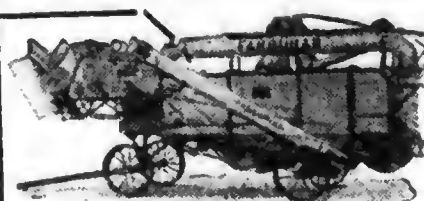
Verified-Origin is a three-cornered agreement between the grower, Federal Government and ourselves... with Government inspection to check up on us. Every pound carefully checked and sealed. This protects you against unsuitable seed. Prices: Red Clover \$6 to \$7 per bushel under last year. Send today for samples.

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ing officers: President, H. L. R. Anderson, Grove City; H. M. Kauffman, Lancaster, vice-president; J. A. Rose, Harrisburg, secretary-treasurer.

Turkey growing in complete confinement also was depleted by means of posters and charts. A Bronze turkey and a White Holland turkey in cages posed as living results of the new system of growing the holiday birds.

Of particular interest to girls and women visitors at the farm show was the exhibit staged by college home economics workers. This is a full size room with furniture in place and the proper colors as arrangement of furnishings to make the best better in the girl's room.

Breed Associations

Guernseys

The Guernsey breeders this year followed the general type of exhibits shown at last year's Show. They exhibited four outstanding Guernsey cows representing the true type, conformation and production ability of the best Guernsey cattle. In addition to these they exhibited 12 young bulls all tested for abortion and tuberculosis and all coming from outstanding herds and with records on their dams averaging from 600 to 800 pounds of fat a year. Ten of these bulls were sold by Thursday evening at prices ranging from \$125 to \$500. All of these bulls were sold to Pennsylvania farmers and will head herds in this state in the future. The object of this project of selling sires is not one of disposing of surplus bulls but rather aims to give farmers coming to this Show an opportunity to purchase at reasonable prices some of the outstanding sires of the breed.

Holsteins

A complete show herd was shown by the Holstein breeders, consisting of a bull and of one female in each class of a show herd. The records of production and the type of each of these individuals likewise represented the best of this breed.

In addition to this breed exhibit were shown 25 Holstein heifers owned by the boys and girls in the Dauphin County Calf Club. Harold Graybill exhibited the champion, and John Kore, the second prize winner of the class.

Jerseys

The Jersey exhibit consisted of one bull and ten young cows all coming from Wayne county and all owned by Association members of the Jersey Bull Association in that county. Five of these cows are daughters of You'll Do's Jolly Warder, a sire used in this county for seven years. The other five are daughters of another Association sire used in that Association. All of these show a considerable improvement in production and type over their dams. The entire exhibit aimed to show a correct Jersey type as well as what can be done by the use of good sires.

Ayrshires

The Ayrshire exhibit was very unique in that it consisted of but two animals, but both of them nationally known. The one was one of the two cows that walked from Vermont to the National Dairy Exposition at St. Louis this fall. The other was the bull calf dropped after the mother arrived at that Exposition.

The various dairy breed organizations of the state also held meetings during the week during which officers were elected as follows:

The Federation of Holstein-Friesian Clubs of Pennsylvania re-elected the following officers: President, H. D. Allebach, Trappe; vice-president, J. G. Kerick, Towanda; secretary-treasurer, H. E. Robertson, York.

The Brown Swiss Cattle Breeders' Association re-elected Kenzie S. Bagshaw, Hollidaysburg, president; H. L. Graziop, Warrior's Mark, vice-president, and Irma C. Wohlwend, of Salina, secretary-treasurer. This association will hold its annual picnic at the Pennsylvania State College some time in June, according to a decision reached at its business meeting.

J. M. Risinger, Homer City, was named president of the Pennsylvania Jersey Cattle Club at its business meeting. J. L. Wyke, Jeannette, was re-elected secretary-treasurer.

The Pennsylvania Ayrshire Breeders' Association elected the following officers: President, Andrew H. Hershey, Elizabethtown; vice-president, Thomas

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THE YOUNG PEOPLE

Washington's Birthday Party

HERE is the jolliest kind of a patriotic party to give any time during February or in early March. If it is a home party the invitation may be written on a cardboard cut-out representing a small hatchet. If it is a community affair a poster may be made with a patriotic picture cut out from decorated crepe paper and pasted to a bright blue cardboard mount. The invitation may read:

Hear ye! Hear ye!
Come to Washington Headquarters
on February 1st at 8 o'clock.
The Party at Washington Headquarters.

It would add considerably to the effect if the doorway were covered by imitation tent flaps (crepe paper or sheets), one flap to be turned back to admit guests. On one or both sides of the tent stands a Continental soldier, whose costume is made of crepe paper and a cotton wig.

Greeting George Washington

The guest, entering the tent, sees George Washington himself, dressed in a cape and wig, sitting at a small table, writing by the candle light. He does not look up as you enter, but a sentry approaches and explains that if you are to enjoy General Washington's party on even terms with him you must claim previous acquaintanceship; and after a little coaching by the sentry you understand and say, "Oh, yes, I knew George before he had an axe," or perhaps a girl "dried George's eyes after his Dad licked him," etc. The sentry then introduces you to the General, explaining who you are, and George Washington writes down about your former knowledge of him, suggesting that you be seated and think up the details of the occasion in question. This, and watching the other guests, keeps you engaged until all have arrived.

Then the lights in the room are turned on, George Washington places on the floor in the center of the room a piece of cardboard on which is written in large letters, "Campfire," and all are invited to sit in a circle around the campfire. George Washington now takes his list and calls on the guests one at a time to tell in two minutes the story of that earlier friendship with him. If the guests enter into the spirit of it, some very clever and interesting short stories will result.

Blowing Cherries

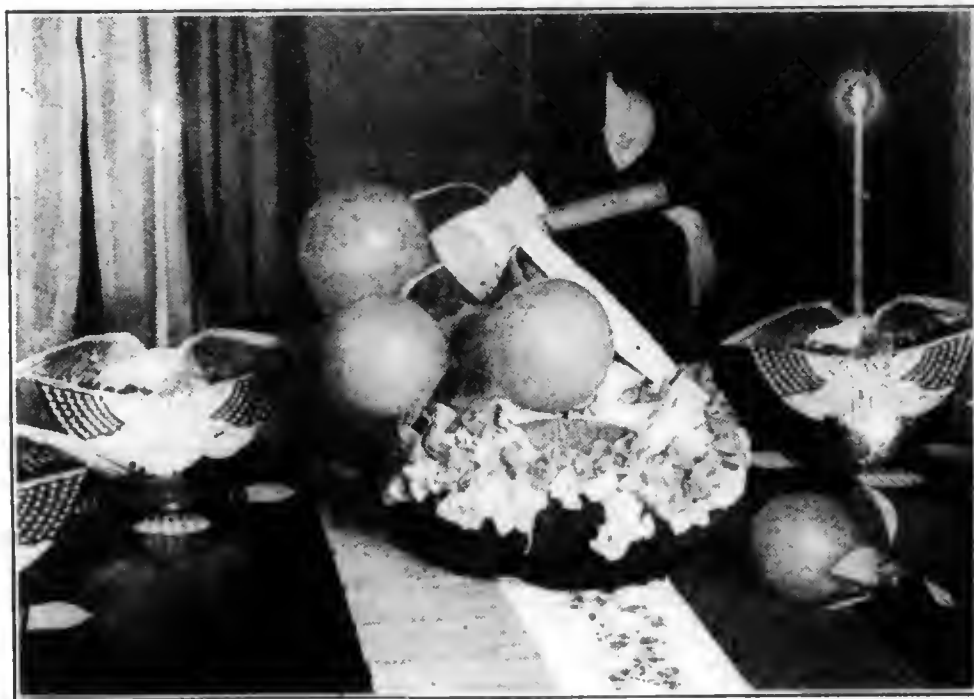
This is a contest between the girls and the boys at the party. It may be played at this place in the evening, or it may be held until a time when things may lag or drag, as they sometimes have a way of doing, even at the best of parties.

You may depend upon it that ere the game is two minutes old your most conservative and primmest guest will be seen with his head on the floor, blowing at the balloon as

hard as he can in his weakened condition from laughing.

Stretch a string lengthwise across the room at floor level, thus dividing the floor into two fields, girls on one side, boys on the other; nobody may step over the line nor touch the balloon nor be touched by it, or it goes to the opposing side.

A giant cherry (large red rubber inflated balloon) is thrown to the ceiling in the center of the room. When it comes down each side, by blowing only, endeavors to cause it to touch either an opponent or the floor on the opposite side of the line from them. The side successful in so doing puts the cherry into their basket and another is tossed into the air as before.



Many and varied are the decorations for February parties. Our booklets will help you in planning games and making favors.

The side which first gathers ten cherries wins, but the losers will have had so much fun that no consolation prize is necessary.

Crossing the Delaware

The guests are again divided into sides, but mixed sides. One side consists of Washington's soldiers. They take their place at the side of the river (grouped at one side of the room); the other side represents cakes of ice and they place themselves unevenly about the room, so that the soldiers must wind their way around them to cross. However, there must always be room left for a soldier to pick his way around and across between the ice cakes without touching any of them.

The object is for the soldiers to get "across the Delaware" without laughing, and for the ice cakes to maintain frozen faces and not laugh either. One at a time the soldiers try to cross. They have a given time in which to cross; and while crossing, if the soldier succeeds in making any icy countenance melt and laugh, then

that ice cake loses his identity and must go over and join the soldiers' side. But if an ice cake can make a soldier laugh, he has fallen victim to a cake of ice and must join them in the river as another cake of ice.

The same penalty as for laughing is imposed if—

A soldier, through his own fault, bumps into a cake of ice;
A cake of ice is bumped through, there being no path left open between cakes;

A member of one side purposely touches one of the opposing side.

The end of game (usually a quarter to half hour) shows the winning side, of course, by its number. And now, the best of martial charms—The greatest thrill—THE CALL TO ARMS!

One of the Continental soldiers brings a small table or stand to the



A Cherry Tree Made of Paper

Your Drummer boy plays a run-tum-tum. And that will start you dancing soon. 10. I Wear a Cap Size 10. Your partner you shall soon behold. He is a Captain, brave and bold.

Table Decorations

The story of Washington and the Cherry Tree is a favorite decoration. It never fails to delight young and old. Then, too, a cherry tree makes a delightful decoration.

One is in keeping with the "Blowing Cherries" game. A small round box is covered with twisted petals of crepe paper in red, white and blue. A large cardboard hatchet graces the top, with three cherry red balloons to simulate cherries; for the tree branch a mailing tube is wound with brown crepe paper. Candelsticks are decorated with patriotic cardboard cut-outs, and placed around this decoration. Place cards may be balloons with green crepe paper leaves, tied with the ribbon holding the place card. A strip of national blue crepe paper is used for a table runner with a cherry pattern crepe paper border placed in the center.

Another stunning table decoration is to use a patriotic table cover, and make chair backs to match. The chair backs are made by stitching decorated crepe paper into slip covers.

The center decoration simulates a cherry tree as well as the favors. Green crepe paper leaves are cut out, small wads of cotton covered with red crepe paper simulate cherries. Cherries and leaves are wound on heavy wire branch fashion, and then assembled together with extra wires to form a trunk. The trunk is wound with strips of dark brown crepe paper. The box is decorated effectively with cardboard cut out hatchets. Tucked streamers in red and white form a border decoration. The favors may have red gum drops in place of cotton padded cherries.

Little Folks

MY PET HEN

I HAVE a hen named Boots. She is about two years old. When she was a little chick she had her leg broken and I put her in a box in the house. After she had gotten well I let her run into the yard. Each evening she would come up to roost but instead of going to her box she would get upon my brother's shoulder and want to roost there.

After she was older I put her into a coop with some turkeys, pigeons, guineas and other chickens. We called them Boots and her Buddies. All of the other chickens did except Boots and one other chicken. We called it Buddy. Boots will come to us when we call her. She will follow us around if she is very hungry. She lays nearly every day. She is my pet and if anything would happen to her it would make every one cry at home. I expect, as we all like her.

Yola Everett.
Cecil county, Md.

1. "Over 21—Not a Minor"
You'll find your Major very cute.
So when you see him, just salute.
2. "Paint Carrier"
The Color Bearer, who guards the flag,
Awaits you, so find him and do not lag.
3. "Culinary Cop"
Of course when you've danced you are
In for a treat.
Your Kitchen Policeman will see that
you eat.
4. "Postman"
A Dispatch Bearer you should see,
For lithe and fleet of foot is he.
5. "Gas Meter"
Search for your soldier, faster, faster:
He is, it seems, the Quartermaster.
6. "Keep Out"
For pleasure seek the rank and file,
Just watch this private make you smile.
7. "I'm a Nut or Partly So"
At others you may look askance,
For with a Colonel you shall dance.
8. "Trotting My Own Horse"
You shall dance with a bugler gay
When he has sounded reveille.
9. "Traveling Salesman"

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Please send me the books postpaid that I have checked below:
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and party games 10c
Tables and Favors, including general instructions for making favors
and centerpieces 10c

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Address

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Mail all orders to Party Editor, Pennsylvania Farmer, 7301 Penn
avenue, Pittsburgh, Pa.

pullet, J. J. Schumacher, Lebanon. Cock-
ereel, S. L. Poultry Farm.
Rose Comb Buff Leghorn: Cock, cock-
ereel, Kriner, Leader.
Single Comb Black Leghorn: Cock and
pullet, Reagle, Hen and cockerel, Neidigh.
Silver Leghorn: Cockerel and pullet,
Myers.
Silver Duckwing Leghorn: Cock, hen and
pullet, Kriner.
Red Leghorn: Cockerel and pullet, Har-
ry T. Schumacher, Valley View.
Columbian Leghorn: Hen and cockerel,
Lentz & Wallace, Bowmansdale.

Minoras and Cornish

S. C. Black Minoras: Cock, hen and
cockereel, F. A. Deifer, Allentown. Pullet,
Whitaker Farm, Lancaster. Young pen,
Mrs. H. M. Augenbaugh, Manchester.
S. C. White Minoras: Hen, Lentz &
Wallace. Hen and pullet, Kretschmer, Cock-
ereel, J. Earl Dobbs, Bedford.
Dark Cornish: Cock, Theo. M. Startzer,
Robesonia. Hen, Wm. H. Eschenshade,
Valley View. Cockerel, Startzer, Pullet, Ira A.
Winey, Thompsonstown.
White Cornish: Cock, John C. Kriner.
Hen, cockerel and pullet, Hoke & Son.

Turkeys

Bronze Turkey: Cock, Ellis H. Eschen-
shade, Rocks. Hen, Longwood Farm, Men-
denhall. Cockerel, Ellis H. Eschenshade,
Pullet, Mountalm Farm, Phoenixville.
Bourbon Red Turkey: Cock, hen and
pullet, Clover Lane Farm, Spring Grove.
Narragansett Turkey: Cock, hen, cock-
ereel and pullet, Clover Lane Farm.
White Holland Turkey: Cock, Clover
Lane Farm. Cockerel, T. A. Lewis, Clear-
field.

4-H Club Capons

(Barred Plymouth Rocks)
Lynn Gritman, Dalton; 2, Elden Petty,
Ransom; 3, Emil Lewis, Pittston; 4, Lester
Stone, Waverly; 5, Herbert Butson, Chin-
chilla; 6, Willard Smith, Pittston; 7, Elsie
Krege, Falls; 8, Betty Jane Frederick,
Coryngham; 9, C. E. Gay, Wyoming.

Egg Show

Boys' and Girls' Class
Single dozen whites: 1, Grace Holland,
Thomsville; 2, William Landis, Lampeter;
3, Mary Jane Schroppe, Hegins.
Single dozen browns: 1, Ivan Hand,
Muir; 2, W. S. Fritz, Jr., Honesdale; 3,
Wilbur Mayer, Lancaster, R. 4.

Back Yard Class

Single dozen whites: 1, John Hand,
Muir; 2, Dale Heighes, Biglerville; 3,
Chas. Cade, Honesdale.
Single dozen browns: 1, Mrs. J. B.
Fisher, New Holland; 2, Ed. C. Erk, Seely-
ville; 3, C. E. Harris, Dillsburg.

Farmers' Class

Single dozen whites: 1, Harry Blake,
Honesdale; 2, Forest Henning, Litzitz; 3,
H. Haase, Narrowsburg.
Single dozen browns: 1, H. A. Robin-
son, Seelyville; 2, S. A. Shirk, New Hol-
land; 3, Irvin E. Artz, Hegins.
Five-dozen display—whites: 1, Forest
Henning, Litzitz; 2, Henry Arens, Nar-
rowsburg; 3, Edwin B. Wallis, Liverpool.
Five-dozen display—browns: 1, S. A.
Shirk, New Holland; 2, Claude S. Gorham,
Le Raysville; 3, H. W. Billmyer, Walkers-
town.

Commercial Class

Single dozen whites: 1, P. D. Zimmer-
man, Hankey Baking Co. Farms, Oakdale;
2, Inglenook Poultry Farm, Concordville,
Del.; 3, Zimmerman.
Single dozen browns: 1, Marcus A.
McKnight, Carlisle; 2, H. D. Hennigh,
Spring Mills; 3, David Deaterly, Fayette
City.
Five-dozen display—whites: 1, Zimmer-
man; 2, Inglenook Poultry Farm; 3, Zimmer-
man.
Five-dozen display—browns: 1, David
Deaterly, Fayette City; 2, Marcus A. Mc-
Knight, Carlisle.

Breeders and Hatchery Class

Single dozen whites: 1, P. T. Kistler,
Towanda; 2, G. H. Hocker, Milanville; 3,
Kistler.
Single dozen browns: 1, 2 and 3, Kistler.
Five-dozen display—whites: 1, John
Schroppe, Hegins; 2, Kistler; 3, Homestead
Poultry Farm, Honesdale.

Sweepstakes Class

Best dozen white eggs in show: P. T.
Kistler. Best dozen brown eggs, Kistler.
Best five-dozen display of whites in show:
John Schroppe. Best five-dozen display of
browns, Kistler.
School with the largest and best dis-
play: West Lampeter Vocational School,
Lancaster county.
County with the largest and best entry:
Lancaster county.
Best dozen in boys' and girls' class: Ivan
Hand, Muir.
Best dozen in backyard class: Mrs. J.
B. Fisher, New Holland.
Best dozen in farmers' class: Harry
Blake, Honesdale.
Best dozen in commercial class: P. D.
Zimmerman, Oakdale.
Best dozen in hatchery class: P. T.
Kistler, Towanda.
Best five-dozen display in farmers' class:
Forrest Henning, Litzitz.
Best five dozen display in commercial
class: Zimmerman.
Best five-dozen display in hatchery class:
John Schroppe.

Butter

Farm butter: 1, Earl A. Jackson, Akers-
ville; 2, Mrs. John E. May, Dover, R. D. 4;
3, Mrs. J. E. Vester, Scenery Hill, R. D. 1.
Creamery butter: 1, Fairmont Creamery,
Pittsburgh; 2, Kane Dairy, Kane; 3, Her-
shey Creamery, Harrisburg.

Dairy Products

D. C. Gilham, Schuylkill Haven, was
awarded first prize in the individual col-
lective apary exhibit. Treedale farms
of Mars took second place. The Schuyl-
kill County Beekeepers' Association won
first place in the county association col-
lective exhibits. The Allegheny County
Association was second and the Lehigh
Association was third.

First places in awards follows:
Light comb honey, Wm. A. Heiss &
Sons, Millburg. Dark comb honey,
D. C. Gilham, Schuylkill. Light extracted
honey, Merrill E. & Honey Co., Muncy.
Honey extracted honey, Gilham. Dark
extracted honey, Treedale Farms, Mars.
Crystallized extracted honey, Wm. A. Glebe,
Delaware Water Gap. Beeswax, Gilham.

Small Grains

Wheat

District 1: 1, W. H. Schlegel, Bath, R.
1; 2, Allen Bomberger, Lebanon, R. 7; 3,
Howard Atherton, Green Castle.
District 2: 1, Wm. J. Fox & Sons, Cabot;
2, Albert Fox, Cabot; 3, Jacob Platt, Ber-
lin.
District 3: 1, Ernest Moran, Lock
Haven; 2, Nevin Stover, Millheim; 3, Den-
nis Strohl, Lehighton.
Champion: Ernest Moran, Lock Haven.

OATS

District 1: 1, W. C. Frank, Pine Grove
Mills; 2, Dennis Strohl, Lehighton; 3, Cary
E. Sprigle, Saylorsburg.
District 2: 1, Glen Schuckers, Brook-
ville, R. 1; 2, Thomas Kostenbader, Naz-
areth; 3, A. L. Shaffer, Brookville, R. 4.
Champion oats: Glen Schuckers, Brook-
ville.

BARLEY

1, Francis Lint, Sand Patch; 2, F. W.
Hopper, Fairhope; 3, Gladen Walker,
Somerset.

EYE

1, Dennis Strohl, Lehighton; 2, R. D.
Hagenback, Bath, R. 1; 3, Spencerwood
Farms, Bowmansdale.

SOY BEANS

1, Wm. J. Fox & Sons, Cabot; 2, Louis
H. Fox, Cabot.

BUCKWHEAT—SILVER HULL

1, Lewis Fox; 2, Wm. J. Fox; 3, Francis
Lint, Sand Patch.

BUCKWHEAT—JAPANESE

1, Harry Cooney, Landsburg; 2, Edgar
Beck, York, R. 9; 3, H. E. Long, Brook-
ville.

TIMOTHY SEED

1, Smiley R. Briner, Green Park.

TOBACCO

Jacob H. Hostetter, 59, Lancaster coun-
ty, was a tobacco exhibit winner again
this year. He has exhibited and taken
one or more prizes in every one of the
fourteen State Farm Products Shows. He
has been growing tobacco in Lancaster
county for 79 years and is probably the
oldest tobacco grower in America. He won
first prize this year in the "Farmers'
Filler" class.

SEED LEAF

Stogie wrapper and binder: 1, J. D.
Walker, Christiana; 2, Mrs. N. E. Euerode,
Litzitz; 3, Milton Snyder, Manheim.
Wrapper B's: 1, David Martin, New
Holland; 2, Wm. V. Brubaker, New Hol-
land; 3, Charles R. Troop, Elverson.
Penn's Seed Leaf—Filler B's: 1, Darryl
Christ, Washington Borough; 2, Clyde
Ethelman, Washington Borough; 3, Ben
K. Deas, Salunga.
Penn's Seed Leaf—Farmers' Filler: 1,
J. D. Dostetter, Millersville.

Havana Seed

Wrappers: 1, Ramo; 2, W. S. Baird,
Lock Haven; 3, Adam Waltz, Lock Haven.
Binders: 1, S. C. Ramo, Lock Haven; 2,
Hayes Doreyn, Lock Haven; 3, Waltz.
Fillers B's: 1, Lamont Kress, Lock
Haven; 2, Dorey; 3, Ramo.

Penn's Havana Seed

Farmers' Filler: 1, Ramo; 2, Dorey; 3,
Kress.

Wool Awards

First prize and a silver loving cup
awarded by the More Sheep—More Wool
Association of America were won on six
medium wool fleeces by the Susquehanna
County Sheep and Wool Growers' Asso-
ciation. Lawrence County Sheep and Wool
Growers won second, Mercer county third,
and Washington county fourth.

Medium Wool

In the individual exhibits of medium
wool the following awards were made:
Pure-bred ewe fleeces: 1, J. B. Hender-
son, Hickory; 2, W. J. Horton, Clifford;
3 and 4, Fred W. McDowell, Mercer.
(Continued on page 33.)

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Farmer's Business Letter

A GOOD deal of concern is expressed by farmers about the business situation and its possible effect on demand for and prices of farm products. Trade in mid-west towns is slow, as they can see for themselves, and the expense of doing business has not decreased. This is taken as a reflection of general business conditions, which reports indicate are not too good. There is known to be much unemployment. The hope is expressed that there will be gradual improvement. Nobody expects a sharp turn for the better.

Livestock on Farms

The government estimate of livestock on farms January 1 was issued this week. It showed the following: All cattle and calves: 57,967,000 head or 102.7 per cent of year earlier. Cows and heifers: (Two years and over, kept for milk) 22,499,000 head or 102.6 per cent of year earlier. Heifers: (One to two years old being kept for milk cows) 4,660,000 head or 105.03 per cent of year earlier. Sheep and lambs: 48,913,000 head or 103.0 per cent of year earlier. Swine: (Including pigs) 52,600,000 head or 92.5 per cent of year earlier. Horses and colts: 13,440,000 head or 96.7 per cent of year earlier. Mules and mule colts: 5,522,000 head or 98.7 per cent of year earlier.

A sharp decrease in hogs, a steady gain in sheep and dairy cattle, beef cattle about unchanged, continued decrease in horses and mules—the hog figures alone were out of line with expectations.

Hog Futures

It is announced that trading in hog futures, under the sponsorship of the Chicago Live Stock Exchange, will begin March 1. The carload will be the unit. Four grades are specified as follows:

A—Light hogs—Hogs in ear lots averaging not less than 170 and not more than 210 pounds, and uniform in weight and quality.

B—Medium hogs—Hogs in ear lots averaging not less than 220 and not more than 260 pounds, and uniform in weight and quality.

C—Heavy hogs—Hogs in ear lots averaging not less than 260 to not more than 310 pounds, and uniform in weight and quality.

Hogs in the above three classes delivered on future contracts shall not contain single hogs that vary more than 10 per cent from the average weight of that lot.

D—Uneven weight hogs—Hogs in ear lots averaging not less than 200 pounds not more than 280 pounds, and shall contain no hogs weighing under 150 or more than 330, of standard grade.

Observers express some doubt as to the amount of trading there will be. The margin deposit required is expected to be a discouraging feature, from the standpoint of the farmer.

Cattle Decline Further

The cattle market continued to sag this week, particularly on the top end. Heavy steers are now \$1 to \$1.50 lower than two weeks ago, and yearlings \$1 to \$1.25 lower. On the other hand butcher stock was steady this week, to a little higher on the cheaper grades. Best steers again sold at \$16 this week, but the average price of steers, at \$12.35, declined 50 cents from last week, though it was still 35 cents above the average a year ago this week.

The decline this week came in spite of a sharp decrease in receipts. Chicago had only 38,000 cattle, against 50,000 last week, and the run at the seven leading markets was correspondingly short.

Demand for beef is reported to be dull, probably feeding in some measure the slump in employment. Beef is always one of the first staple foods to feel economizing on the part of consumers. There is no other apparent explanation, in view of relatively light offerings of beef, and prospects of continued moderate supplies. The cattle market is sensitive, and is certain to break further on liberal runs. Light supplies are needed to hold prices where they are.

Hogs Again Higher

The hog market registered nice gains this week in spite of a sharp increase in marketing. The eleven leading markets had a total of 770,000

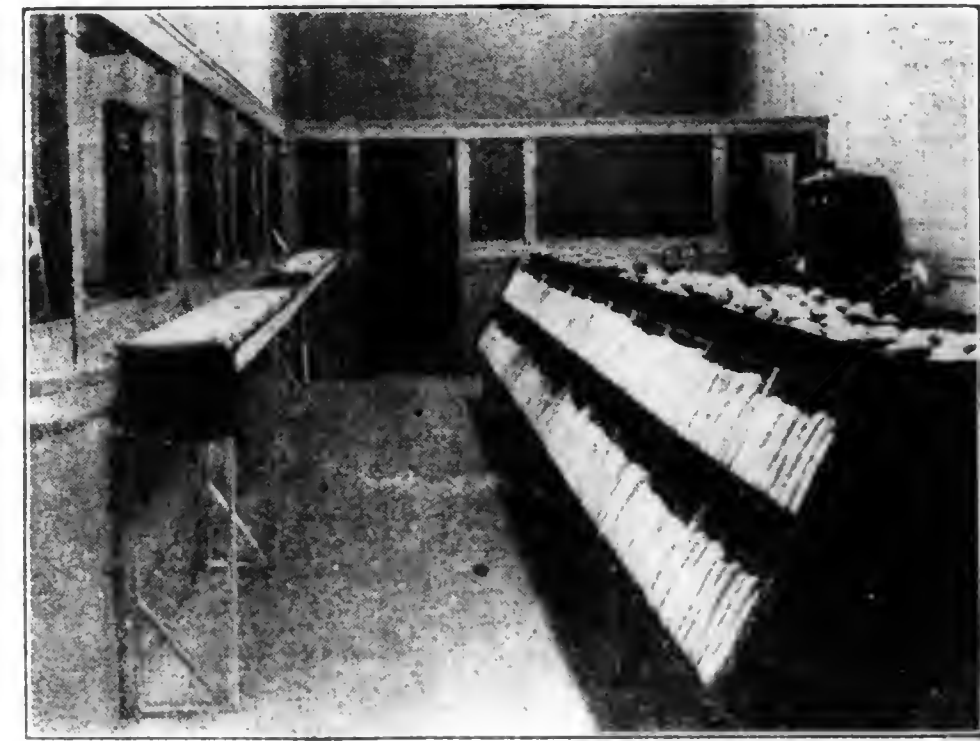
hogs, against last week's light run of 646,000. But eastern orders were good, demand for hogs was active and offerings were promptly absorbed at higher prices.

Average price for the week jumped to \$10, a gain of 40 cents over last week. Quality is good, and weight about normal for time of year.

The hog situation is decidedly bullish, in view of prospects of continued light receipts. Last year there was a sharp advance in hog prices during late January, all of February and the first half of March. The daily average a year ago advanced from a low of \$8.65 early in January, to \$9.70 on January 28, reached \$10 the second week in February, and was at \$11 on February 28. The daily average reached \$11.90 at the high point of the middle of March. Unless something unexpected happens to change the feeling of the trade, it is the belief that a similar upward trend will be seen this year.

Lambs Lose

Lambs were again lower, the decline for the week ranging from 25 to 75 cents. Average price for the week was \$13.05, a loss of 30 cents compared to last week, and \$3.55 under the average a year ago. Lambs, however, are not actually that much lower, due to the demoralized wool market. In fact, in the wholesale market dressed lamb is



Part of the corn and potato show staged by Franklin county farmers in the Chambersburg Trust Company building at Chambersburg, Pa.

Produce Market Quotations

PHILADELPHIA
Butter.—Higher than extras, 40¢/43¢; 50 score, 36¢.
Eggs.—Extra firsts, 47¢; firsts, 41¢; seconds, 41¢/42¢.
Poultry.—Live, fowls, 22¢/23¢; chickens, 23¢/24¢; old roosters, 22¢/23¢; pigeons, pr., 35¢/38¢; ducks, 18¢/25¢; turkeys, 25¢/33¢.
Fruits.—Apples, bu. baskets, Yorks, \$1.25/1.75; Grimes Golden, \$1.55/2.00; Stayman, \$2.00/2.50; CRANBERRIES, N. J., 1/2 bu. boxes, \$2.50/3.25.
Vegetables.—BEANS, Fla., bu. green flat, \$3.50/4.00; BEETS, Pa., 1/2 bu. basket, 25¢/30¢; CARROTS, N. Y., 1/2 bu. basket, 25¢/30¢; CELERY, N. Y., per bunch, 50¢/61¢; POTATOES, Pa., 100-lb. sack, \$2.90/3.10; SWEET POTATOES, N. J., 1/2 bu. basket, 75¢/81¢; MUSHROOMS, 3-lb. basket, white, 75¢/90¢.

LANCASTER
Butter.—Country butter, 50¢/55¢; creamery butter, 45¢/50¢.
Eggs.—Fresh, 41¢/45¢.
Poultry.—Live, fowls, 22¢/23¢; chickens, 23¢/24¢; old roosters, 22¢/23¢; pigeons, pr., 35¢/38¢; ducks, 18¢/25¢; turkeys, 25¢/33¢.
Fruits.—Apples, bu. baskets, Yorks, \$1.25/1.75; Grimes Golden, \$1.55/2.00; Stayman, \$2.00/2.50; CRANBERRIES, N. J., 1/2 bu. boxes, \$2.50/3.25.
Vegetables.—BEANS, (string), 30¢/35¢; 1/2 bu. basket, \$3.50/4.00; BEETS, Pa., 1/2 bu. basket, 25¢/30¢; CARROTS, N. Y., 1/2 bu. basket, 25¢/30¢; CELERY, N. Y., per bunch, 50¢/61¢; POTATOES, Pa., 100-lb. sack, \$2.90/3.10; SWEET POTATOES, N. J., 1/2 bu. basket, 75¢/81¢; MUSHROOMS, 3-lb. basket, white, 75¢/90¢.

now selling at 21 to 28 cents against 26 to 30 cents a year ago.

Receipts at leading points were a little larger than last week, and quite a bit larger than one and two years ago. Expectation of big receipts of lambs to come is not helping the market. Judging from the way lamb prices have been tossed about during the last few weeks, neither buyers nor sellers are certain of the approximate value of lambs. Buyers back away as soon as prices reach \$14.50/14.75, but lambs at \$12.50/13 bring big orders. The situation continues as it has been—"nobody is bullish on lambs."

Weakness in Wheat

Weakness again prevailed in the wheat market, with a slight net loss for the week in prices. Nobody, apparently, expects a wide price swing in either direction. Those on the short side of the market fear that the Farm Board may step in any day to boost prices; and those on the long side feel that large visible supplies, liberal Canadian and Argentine offerings and apparent reluctance of Europe to buy here will prevent any sustained upward swing. Thus the disposition of traders, on both sides, is to cash gains promptly, which holds prices within a narrow range.

Corn was a little lower this week with larger cash country offerings. Farmers are receiving 70 to 75 cents for No. 4 and 5 corn. This they regard as a good price, though some expected more.

Chicago, Jan. 25, 1930. Watson

WOOL MARKET
Boston, Jan. 25.—The volume of business in the wool market during the past week was very moderate and was restricted largely to the finer grades of combing wools. There was some complaint in trade circles about consumption, but if the retailers follow the recent declines fast enough this situation should be remedied.

The egg market in New York was unsettled and generally lower prices prevailed. White eggs ranged from 42¢/44¢ per dozen depending on grade and quality. Brown eggs brought 44¢/46¢ and mixed colors at 35¢/44¢.

The Butter Market
The butter markets were firm early in the week and prices advanced, but with higher prices there was more pressure to sell and this caused prices to decline again. Later in the week prices recovered and there appeared to be more confidence in the situation. Cold weather and storms in widespread sections of the country were partly responsible for the greater confidence. Some dealers believe that this weather will delay deliveries of cream and curd, the milk flow. The consumption of butter has apparently been increased by the lower retail price. Since the lower prices have been in effect chain stores report a considerable increase in the volume of butter sold.

Domestic Wool Quotations
Grease Basis, Ohio and Similar
6 1/2 70s 80s (fine) strictly combing 34¢/36¢
6 1/2 70s 80s (fine) French combing 27¢/28¢
6 1/2 70s 80s (fine) clothing 25¢/26¢
58¢ 60s (1 1/2-blood) strictly combing 37¢/38¢
58¢ 60s (1 1/2-blood) French combing 33¢/34¢
58¢ 60s (1 1/2-blood) clothing 31¢/32¢
56¢ 60s (1 1/2-blood) strictly combing 35¢/36¢
56¢ 60s (1 1/2-blood) clothing 33¢/34¢
48¢ 50s (1 1/2-blood) strictly combing 38¢/39¢
48¢ 50s (1 1/2-blood) clothing 36¢/37¢
36¢ 40s 44s (common and braid) 33¢/34¢

JERSEY WINS MEDAL
Yielding 69.25 lbs. of butterfat and 12,230 lbs. of milk in 305 days, St. Mary's Championess of O. F. a pure-bred Jersey cow in the herd of W. L. Glafberg of Spring Grove, Pa., recently won an all-Jersey Cattle Club Gold Medal for her outstanding record. She made this record in an official production test started when she was six years and five months of age. Her record is the equivalent of 830 lbs. of butterfat and 5,688 quarts of milk in ten months.

St. Mary's Championess of O. F. has made two previous test records. During the second of these tests she produced 69.22 lbs. of butterfat and 12,232 lbs. of milk in a 365-day test winning an American Jersey Cattle Club Silver Medal for her achievement. She was started on this test when a junior four-year-old and her yield is the equivalent of 862 lbs. butter and 5,688 quarts of milk produced in a year.

NEW YORK
Butter.—Creamery, higher than extras, 38¢/40¢; firsts, 33¢/37¢; seconds, 29¢/32¢.
Eggs.—White, nearby, average extras 45¢; extra firsts, 41¢/44¢.
Poultry.—Live, by freight, 23¢/24¢; old roosters, 19¢; geese, 25¢; ducks, fancy, 25¢.

Pittsburgh
Butter.—Creamery prints, 52 score, 41¢/44¢; tubs, 130/135¢; local tubs, 30¢/40¢.
Eggs.—Selected white 42¢/44¢; brown, 40¢/42¢; current receipts, 38¢/41¢; pullets 35¢/37¢.
Poultry.—Live hens, heavy, 20¢/21¢; Leghorns, 19¢/22¢; roosters, 17¢/19¢; ducks, 20¢/25¢; geese, 18¢/21¢; pigeons, 10¢/15¢ per pair.
Vegetables.—CABBAGE, N. Y., Danish Seed per bu., \$3.50/4.75; 100-lb. sacks, \$2.00/2.50; CARROTS, N. Y., bu. basket, washed, \$1.25/1.50; CUCUMBERS, hot house, per doz., \$1.75/2.25; KALE, Va., bu. basket, 75¢/81¢; LETTUCE, Ohio, hot house, 10-lb. basket, \$1.15/1.20; MUSHROOMS, Penn'a, 3-lb. basket, best, \$1.00/1.15; ONIONS, 100-lb. sack, U. S. No. 1, Mich. Yellow, 36¢/40¢; Ohio yellow, \$1.00/1.50; RHUBARB, Mich. hot house, 5-lb. boxes, 75¢/81¢; POTATOES, 150-lb. sack, U. S. No. 1, Maine Green Mt., \$4.00/4.50; 120-lb. sack, Maine Green Mt., \$3.50/3.60; Penn'a Whites, \$3.40/ 100-lb. sack, Wisconsin Whites, \$2.50/2.90; SWEET POTATOES, No. 1 bu. hamper, Del., yellow, \$1.40/1.65.

Philadelphia Produce Review
THE Philadelphia egg market during the past week has been unsettled with sharply lower prices toward the close. While advices from mid-west and Pacific Coast sections indicated very adverse weather conditions affecting collections, never-the-less offerings at terminal markets were somewhat in excess of buyers' willingness to absorb. Dealers were inclined to seek a safer level on which to operate.

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Nearly receipts both at Philadelphia and New York were fully ample and in some cases toward the close of the week, receivers were not able to place receipts, except at concessions. There has been some complaint in trade circles about consumption, but if the retailers follow the recent declines fast enough this situation should be remedied.

The egg market in New York was unsettled and generally lower prices prevailed. White eggs ranged from 42¢/44¢ per dozen depending on grade and quality. Brown eggs brought 44¢/46¢ and mixed colors at 35¢/44¢.

The Butter Market

The butter markets were firm early in the week and prices advanced, but with higher prices there was more pressure to sell and this caused prices to decline again. Later in the week prices recovered and there appeared to be more confidence in the situation. Cold weather and storms in widespread sections of the country were partly responsible for the greater confidence. Some dealers believe that this weather will delay deliveries of cream and curd, the milk flow. The consumption of butter has apparently been increased by the lower retail price. Since the lower prices have been in effect chain stores report a considerable increase in the volume of butter sold.

Poultry

The New York live poultry market was steady with both Leghorn and colored fowl meeting a moderate demand. Receipts of chickens and pullets from nearby sections were light and sold readily. Receipts of broilers by express were larger and the market was irregular. Fancy stock met a fairly moderate demand. Colored fowl brought 32¢/33¢ and Leghorns 31¢. Chickens sold at 24¢/25¢, broilers at 25¢/30¢, and pullets 24¢/25¢. Dressed poultry was steady. Hot house broilers were in light receipt and sold generally at 40¢ per pound. Fowls were firm and in good demand. There were but few nearby roasting chickens on the market and prices were very irregular and depended upon quality.

Potatoes Rather Dull

The potato market in the East was rather dull during the week with the demand slow. Supplies on the city markets increased and low temperatures retarded trading at many points. Truck holdings in New York were 340 cars late in the week while holdings in Philadelphia had mounted to 121 cars. Boston reported 243 cars on track with dealers unable to move much stock on account of the cold. Shipments continued fairly heavy although the demand at shipping points was slow. Maine points reported Green Mountains selling at \$2.25/2.50 per 100-pound sack f.o.b., while New York points quoted

round whites at \$3.85 per 150-pound sack f. o. b.

Pennsylvania potatoes showed little material change in price. In Philadelphia prices ranged from \$2.75 to \$3 per 100-pound sack, in Baltimore \$2.25 to \$3 and in Pittsburgh \$2.25 to \$3.40 per 120-pound sack. Maine stock generally sold at about the same levels as Pennsylvania stock although Pittsburgh reported Maine's at \$3.40/3.60 per 120-pound sack or about fifteen to forty cents above that from this state.

Sweet potato shipments averaged fifty cars daily and the markets showed some improvement on fancy stock. New Jersey yellows were quoted at \$1.50/2.25 per bushel in New York, and at \$1.30/1.90 in Philadelphia.

Apples Slow Sale

Apples continued to sell slowly in both Philadelphia and New York. There was a moderate demand for the best offerings but the bulk of the supply was hard to move. Truck receipts of nearby Pennsylvania, Maryland and New Jersey apples were moderate in Philadelphia but these and the carlot

offerings were fully ample for trade requirements. The best Yorks brought \$1.25/1.75 per bushel, Rome \$1.50/2.25, Delicious \$2.00/2.50, Grimes Golden \$1.50/2.25, Black Twig \$1.50/2.25 and Stayman \$1.75/2.50.

FEED MARKET

The following quotations are for transit and nearby shipment January 24, according to the U. S. Bureau of Agricultural Economics. They show the approximate cost of feed per ton (all in 100-lb. sacks) and grain per bushel in carlots arrival on rail basis delivered on track at Philadelphia and Scranton rate points:
Barley, \$34.50/36; standard middlings, \$24.50; flour middlings, \$36; cottonseed meal, 43 per cent, \$46.50; gluten feed, \$42.50; No. 2 white oats, 57¢; No. 2, yellow corn, \$1.05.

HAY AND STRAW

Philadelphia quotations: No. 2 timothy, \$19.50; No. 3 timothy, \$17.50; sample hay, \$13; No. 1 mixed clover, \$18.50; No. 2 mixed clover, \$17.

No. 1 straight ryegrass, \$16.50; No. 1 wheat straw, \$12.50.

CHICAGO CASH GRAIN

Chicago, Ill., Jan. 27.—The following cash prices ruled here today: No. 2 hard wheat, \$1.21; No. 3 yellow corn, \$2.08/2.09; No. 4 mixed corn, 79¢/79½¢; No. 2 white oats, 45¢/46¢.

Fresh cows, calf at side 50.00/150.00
Choice heavy bulls 10.00/10.25
Choice heavy butcher bulls 10.25/10.50
Good heavy bulls 9.50/10.25
Fair to good bulls 9.00/9.50
Common to fair bulls 8.50/9.00
Inferior bulls 7.50/8.25

Monday's Representative Sales
Steers
No. Wt. Pr. No. Wt. Pr. No. Wt. Pr.
16 1287 12.25 11 1382 12.00 29 1029 12.90
3 1123 12.85 20 1220 12.75 25 1114 12.75
20 1168 12.65 10 1340 12.60 21 1184 12.50
17 1175 12.50 9 1209 12.40 22 1048 12.40
18 1261 12.00 16 977 10.75

Hogs
Monday's receipts were light, 25 double-deck carloads, mostly lambs. The few buyers bidding lower on the better grades of all weights. Bulk of sales was at \$11.75. Top price was \$12.25 for medium weights. Some heavy cattle were held considerably higher. Bulls and sows were steady. Receipts light.

Sheep and Lambs
Monday's supply was about 17 double-deck carloads, mostly lambs. The few sheep went at steady prices, one load of 110-pound wethers selling at \$8.50, the cut at \$6. Lambs were a quarter or so lower, the tops going at \$13.50. Culls ranged downward from \$11.50, or about 5¢ below last Monday's level. Not many heavy lambs are coming but buyers sort them out. They sell at \$11.50/12.50, according to weight, the heavier the lamb the lower the price. Quality of lambs is generally good.

Good to best wethers 8.25/8.50
Good to best wethers 8.25/8.50
Good to best wethers 8.25/8.50
Good to best wethers 8.25/8.50
Good to best wethers 8.25/8.50
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Good to best wethers 8.25/8.50
Good to best wethers 8.25/8.50

11 Acres—Something else will also need fixing



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GOATS

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thoroughbreds. Big Bucks and does; pairs, 11
herds. Lloyd D. Goldsborough, R.2, McIntosh.

17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840. 841. 842. 843. 844. 845. 846. 847. 848. 849. 850. 851. 85

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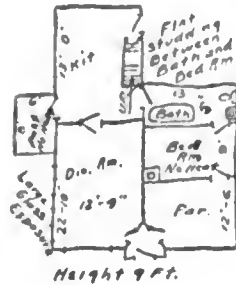
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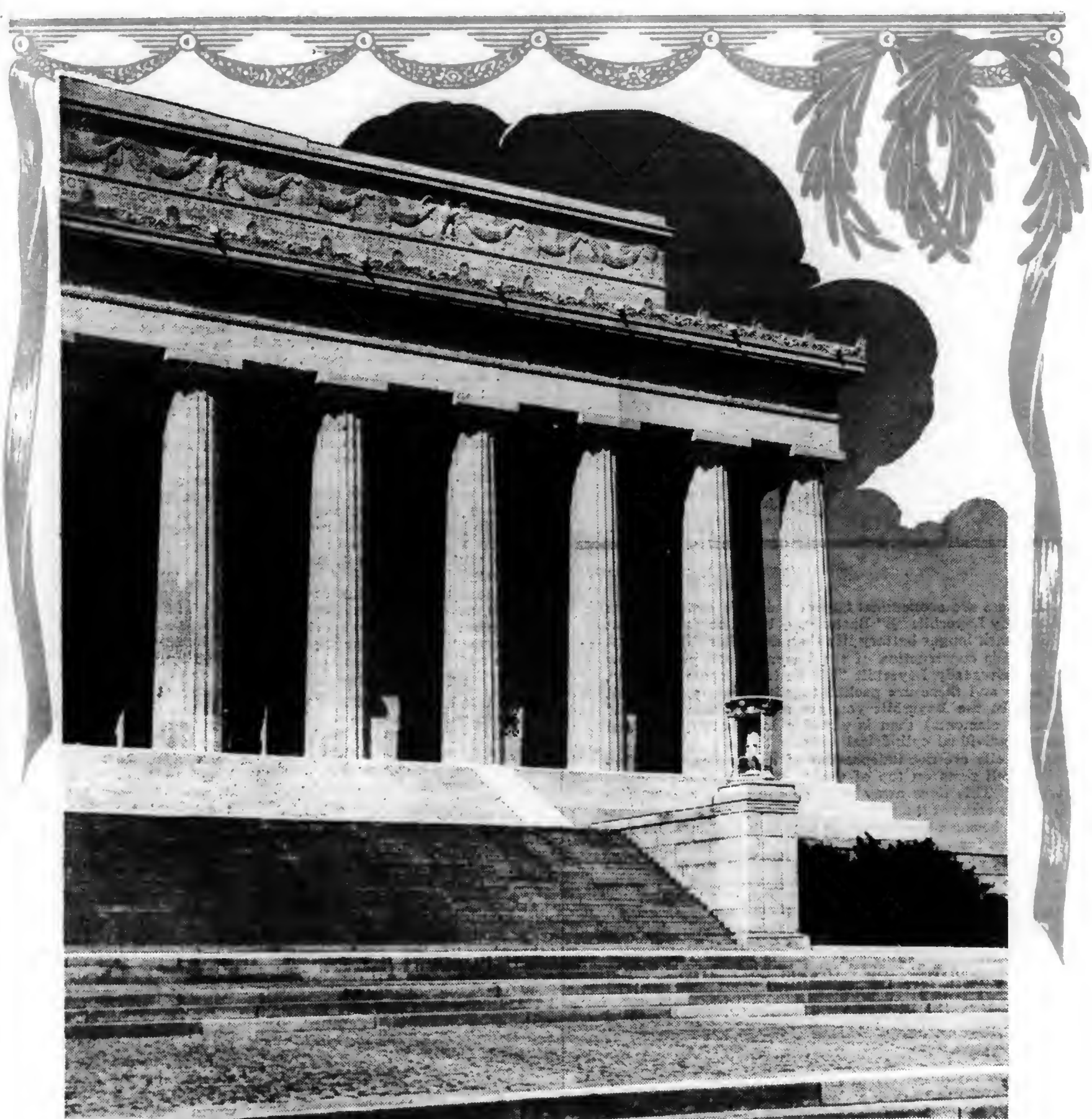
PENNSYLVANIA FARMER

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February 8, 1930



Philadelphia

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Eveready Layerbilt

"B" Batteries cost only a few cents more and last 25% to 30% longer



LAYERBILT CONSTRUCTION
Here is the exclusive Eveready Layerbilt construction. Only 5 solderings and 2 broad connecting bands, all other connections being made automatically. Waste space eliminated. Layerbilt construction is protected by patent.



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This is a typical cylindrical cell "B" battery. It requires 29 fine wires and 60 solderings—89 chances for trouble. Notice the waste of space between cells.

SUCCESSFUL farmers are economical buyers and their overwhelming choice for Eveready Layerbilt "B" Batteries is based on the fact that Layerbilts offer much longer battery life than any other "B" battery.

Look at the inside construction of the Layerbilt and you'll know the reason why. Eveready Layerbilt "B" Batteries contain unique, patented flat cells and these are packed together tightly, filling all available space. In the Layerbilt you get more "active material" (power-producing elements) than is possible in a battery of equal size made up of individual cylindrical cells.

And these flat cells are not independent of each other, but interdependent. One cell rests on top of the other, with direct contact from cell to cell. This does away with 60 solderings and 29 fine wires, necessary to connect the cells in the ordinary type of "B" battery. You benefit, because the Eveready Layerbilt construction cuts out these 89 chances for trouble.

There are two sizes of Eveready Layerbilt "B" Batteries. Medium Size No. 485 (\$2.95), which will last 25% longer than Eveready Cylindrical Cell Battery No. 772, although it only costs 20 cents more. And Large Size No. 486 (\$4.25), which will last 30% longer than the cylindrical cell Eveready Heavy Duty "B" Battery No. 770, though costing only 25 cents more.

When you buy your next "B" battery, insist that it is one with the Eveready Layerbilt label.

NATIONAL CARBON CO., INC. General Offices: New York, N. Y.
Branches: Chicago Kansas City New York San Francisco
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Tuesday night is Eveready Hour Night. East of the Rockies—9 P. M. Eastern Standard Time, through WEAF and associated N. B. C. stations. On the Pacific Coast—5 P. M. Pacific Standard Time, through N. B. C. Pacific Coast network.

EVEREADY
Radio Batteries

Farm Facts and Fancies

By ALVA AGEE

ALL my life our farm papers have put emphasis on guarding the soil's store of plant food and of adding to it. Certainly too much has not been said, and yet it seems more and more clear to me that we need to place good physical condition of the land first of all. That is the reason why our best farmers in some sections of the East try to get all sod land broken before mid-winter.

Of course some fertility leaches out when frost is out of the ground and rain falls, but the early plowing gives better tilth to some soil, and that is more important than saving the plant food that escapes from bare land. If we cannot have both good physical soil condition and plenty of available fertility, I should choose the former in a farm to be devoted largely to plow crops.

When a soil is naturally loamy, it is easily built up, but a plastic clay sticks to its traditions, no matter how hard we try to make it over. As Bro. Zinn explains to an inquirer, sod land, when fall plowed, has less soluble fertility to lose from exposure to rains, but probably the safe test of the wisdom of fall plowing is its need to afford full exposure of clay land to freezes so that the soil will be more mellow in the spring, and if that occurs there is more profit than there is loss from leached fertility. If I were buying a farm, naturally good physical condition would be rated ahead of the store of available plant food.

Effect of Cover Crops

The growing of cover crops which are plowed down green is good farm practice, but their mellowing effect on a stiff soil is pretty temporary and often slighter than one expects. The trouble is that the material is sappy and rots quickly, and then the soil particles come together again. When the growth is mature, its effect shows for a year or two. That is one reason cornstalks, when turned under, are so satisfactory.

Clover and alfalfa roots usually are two years old, or older, and woody enough to keep a tight soil somewhat open for a year or more. Stable manure, with bedding in it, lasts well in the soil.

All these things, in the case of a stiff soil, have a value exceeding that of the plant food in them. They affect physical condition far more than a large bulk of quite immature stuff.

Effect of Liming

It is usual to emphasize the value of lime in making a close soil friable, and we know that it is so when a heavy application of burned lime is made. The Pennsylvania German farmers knew that a long time ago. Since we have come to the use of relatively light applications of lime I do not believe the effect on physical condition is a very big consideration. There usually is reason enough to use lime without drawing on the imagination, and while there is some physical benefit we cannot depend on a light liming to put a stiff soil into good tilth.

Drainage helps, if there is too much water, and hard freezing helps greatly, and after that our best means of bringing a compact soil under control is organic matter that has a lot of woody fibre in it. Then there are soils so intractable that they are not worth the effort necessary to bring them under tillage, and grass was made to cover them. Most grasses like a compact soil.

Tillage to Keep the Soil Loose

One primary purpose of plowing is to break the soil apart so that air can get into it. Plant roots cannot get along without it. When a close soil has been broken and pulverized, a crop can be started in a satisfactory fashion, but the puzzle comes when

rains pack the ground together at the same time the plant roots extending through the soil.

The shallow tillage of corn potatoes was so emphasized by us a generation ago that we forgot how difficult a compact soil makes conditions for plant roots. Such land we often see roots fail to develop close to the surface, packing rains. We take a middle course between two evils when cultivate deep enough to admit air and yet do not prune roots more than is absolutely necessary. There is a middle course and it takes good farming sense to find it. The nearer we come to converting a clay soil into a more mellow one, less root-pruning after plants start necessary. The soil must have air.

An Ill-Health Suggestion

Our editor once said that he did not think much of converting a paper into a journal of health. An ill-health hint may be a different matter. When one has some ill flesh is heir to, and now and then ill it acquires on its own hook, a doctor is about to be called, it is as well if the call isn't made, may be. In its stead one may get two dozen good oranges, and will make ten glasses of juice. Equipped, he will be ready for a rest five days out of seven, it is reasonable that one's digestion, and then, should have an chance.

The proposed 48 hours fast orange juice usually helps, it is not some think that when one is in such condition that he would be a waste of time for him to try to get well by any other road. It is experience that on the third day one is not as hungry as he thought would be, and it is just as well to confine himself to carrots, and such like, and not eat real food until the stomach has got back to hang of doing its work. The advantage in making carrots a considerable part of the third day's ration is the danger of overeating is eliminated.

A Hand-Picked Route

MOST farmers despise carrying a chicken, a dozen eggs or a quart of buttermilk to a town woman. I fought against the idea for years until failing health made me drop harder tasks for the pattering. I hated to prowl around back trying to find the mistress of the house; I hated to be told to come back next week for my money, hated to have women sniff at my dressed chickens and find fault. I determined to hand pick my customers. If a woman paid promptly and was reasonable, not expecting to drive to her home with six eggs one day and bring something else the next, I carried to her a bouquet from the garden or a few vegetables. I did not really mean much to her. Almost every country garden has many beets, too many radishes and too much lettuce all at once, so I gave her what I had. I had small money value.

My patrons meet me at the door with a pleasant smile, the money ready, for they know my hours. Word of thanks for the little "bouquet," as the southerners call the gift with a purchase, and I have warm friends among them. I drive out occasionally for their things and are "just folks" like the rest of us. By keeping the standard of the food up I can pick and choose what gets it.—Experienced.

THE COVER THIS WEEK

A view of the Lincoln Memorial in Washington, D. C., is shown on cover this week.

Farmers welcome this buying guide to QUALITY in fertilizer

Look for this certificate



Look for this sign of your A. S. A.

Ask your Authorized Swift Agent about Red Steer 7-11-7; 3-12-15 and 4-16-10. Like farmers who have relied on Swift's Red Steer Fertilizers for years, you'll find how well it pays to use them. In case you can't locate your A. S. A. at once, write direct to our nearest plant.

NOW they know the importance of quality in fertilizer, farmers say. They are relying more and more on the Swift Certificate of Quality as their surest buying guide.

For the Swift Certificate of Quality assures: **BEST MATERIALS**—plant food from the most productive sources.

DOUBLE MIXED—fertilizer thoroughly mixed and in good drilling condition so that each plant will get its share of plant food.

TRIPLE TESTED—in fully equipped laboratories. This assures the right kind of plant food in the right form and the correct amount.

Do you know what "guaranteed analysis" really guarantees? Only the amount of plant

food. In addition, the Swift Certificate assures highest quality in plant food.

By using Red Steer bearing this certificate you are assured a quality fertilizer. And quality fertilizer brings you not only bigger yields, but also better quality crops.

Specify high analysis Red Steer and get your plant food for less money. For example, one ton of 4-16-4 has the same amount of plant food in exactly the same proportions as two tons of 2-8-2 and it costs less.

Feed Your Crops!

Crops are like live stock—the better you feed them the more money they will bring. Generous applications of fertilizer produce most profitable returns. Ask your A. S. A. or write the nearest Swift Fertilizer Works.

Swift & Company
Fertilizer Works

Hammond, Ind. Cleveland, O.
Baltimore, Md.

Swift's Red Steer Fertilizers

"It pays to use them"

BEST MATERIALS—DOUBLE MIXED—TRIPLE TESTED

Why Wear Divers' Boots?



You don't need them to
keep YOUR feet on the ground!

NO one but a DIVER would work in a pair of divers' boots. He carries 16 pounds on each foot. He has to, to keep his feet on the ocean bottom. But the MODERN-MINDED farmer does not need such boots to help him KEEP HIS FEET ON THE GROUND. He knows what he wants. He wants a boot that is LIGHT AND COMFORTABLE. He also wants SERVICE.

Through for the day

Still, some farmers think that a boot, to be good, must be heavy. They keep on buying the kind of boots they bought TEN YEARS AGO. Even the kind their fathers used. They keep on coming home dead tired. They are THROUGH for the day.

It is DIFFERENT with the man who wears Goodrich Boots. No lifting of unnecessary dead weight as he works. He is still ALIVE AND ACTIVE at the end of the day.

For Goodrich Rubber Boots are light. They are flexible. And tough. 27 DIFFERENT kinds of rubber compounds and rubberized fabrics give them balance. Certain of the compounds make them flexible. Others make them tough. They are light because each compound is as LIGHT as



Goodrich 4-buckle overshoe.
Light and tough—like
Goodrich Boots

can be and still give you SERVICE—the service hard farm life DEMANDS.

Tire balance in boots

Goodrich Boots balance lightness with service. Goodrich knows the secret of making such boots. The same great research laboratories that have made possible the famous Goodrich Tire made possible the Goodrich Boot. The Goodrich Tire is light, tough, BALANCED. It goes thousands of miles farther than the tire of 10 years ago.

Modern farmers want this same balance in their boots. They want a boot with EXPERIENCE in back of it. Goodrich has over 50 YEARS of tire experience to back up its boots. And don't forget that Goodrich has been making boots, galoshes and rubbers for years, too. You can't beat that combination.

Next time you buy boots, buy Goodrich. PROVE to yourself that Goodrich's years of making tires has helped it to make BETTER BOOTS.

Try out those 27 balanced compounds and fabrics. Let your feet know REAL COMFORT. Give your leg muscles a rest!

The B. F. Goodrich Rubber Co., Est. 1870, Akron, Ohio. Pacific Goodrich Rubber Co., Los Angeles, Cal. In Canada: Canadian Goodrich Co., Kitchener, Ontario.

Goodrich

Rubber Footwear for Every Member of the Family

NESHAMINY GARDENS

By R. P. KESTER

SOME people think that West Virginia produces little but coal and lumber. The facts are that the state is also important in an agricultural way. Even truck gardening is not unknown there, as the following letter will show:

"We grow a little of a good many things, although we are in the A B C class as gardeners. We have read the National Stockman and Farmer for nearly 25 years, but have known you only since the consolidation of the two papers.

"We have got fair control of the Mexican bean beetle by spraying with arsenate of magnesia. Will try dusting with the same material this year, as it can be put on small patches so much more easily.

"When should White Welsh onion seed be sown to furnish bunch onions early in the spring?

"Do 'hotcaps' scald melon and cucumber plants? How long can they be left on? Will they furnish protection from beetles if they are slit to furnish ventilation? Is hollow-stem in celery caused by holding too long, or is it because of poor seed?

"Last spring leaf lettuce sold for twice as much in May as hothouse lettuce sold for in February. How thick should Grand Rapids lettuce plants stand in the row in field planting?

"Our trade will not buy a large head of cabbage. Ballhead is not dependable here. We are planning to grow a succession of Golden Acre cabbage so as to grow it as late as we can, then leave the market to the fellows who can grow Ballhead. Do you know a better plan?

"We find your page very interesting and helpful." —R.H., West Virginia.

Most of us are in the A B C class in all branches of agriculture, in that there is always something we do not know or understand. In almost every other line of business the fundamentals are more or less fixed. In all lines of agricultural production the factors are variable, so that just when we think we have solved a problem, presto! The conditions are changed and we are at sea again. It is this fact that leads to the saying that "farming is a gamble."

I am glad to know that arsenate of magnesia has been used in a practical way and that it does control the Mexican bean beetle. In many localities this pest has almost discouraged gardeners in raising beans.

We have never raised any White Welsh onions and cannot advise when to plant them. But other kinds require planting at the earliest possible date in spring. It is a good plan to have the ground prepared in the fall so that it is ready for the seed by simply stirring it up before planting. The freezing of winter pulverizes the soil and makes it just as it should be.

What our correspondent calls "hot-caps" are no doubt frames made of two or three-inch strips nailed together, making a frame 12 to 14 inches square, over which some material is tacked. The chief purposes are to increase the warmth by keeping off the cold wind and to prevent attack by insects. Cheese cloth is usually the best material to use. There is no danger of plant scalding when this is used. It gives ventilation, hence slitting is unnecessary and undesirable, else the beetles would gain access to the plants.

Some varieties of celery are more prone than others to grow hollow stems. Another cause may be an excess of nitrogenous fertilizer. We have found varieties of the Yellow

Plume, Emperor and Golden Self-blanching are not inclined to be hollow.

Lettuce, if sown in the field, should be thinned, so as to stand eight to ten inches apart. If grown in beds and transplanted, set the same distance if heads are wanted. Leaf lettuce may be planted closer.

The fashion in cabbage has changed in the last few years. Very few people want the old fashioned heads, weighing ten to twenty pounds now. We have found the Danish Ballhead very satisfactory here, and the Golden Acre is also good. The chief things to keep in mind in growing cabbage is size, solidity and crispness.

I have found conditions in market gardening have changed much in ten years. There is nothing now in being extra early with anything, nor exceptionally late. The business has become so widely diffused over the United States that everything is being grown some place almost continuously, and the methods of transportation are so rapid that the most perishable products can be laid down at our doors in good condition.

My birthday was on the 18th of January, but we had green peas in the pot, strawberries and lettuce. The cost of none of them was more than we get for home grown stuff in the summer season.

Friendly Talks

By Edgar L. Vincent

SOME things get to be second nature with us.

"You are always happy, Ned. I wish I felt that way. How do you do it?"

"I just can't help it, Joe." They were two farmer boys talking together. Joe had discovered something about his friend that caused him to be always in good spirits, and he wondered what it was, wishing that he could be all the time bright and cheery. We laugh at Ned's answer, "I just can't help it, Joe." And yet, somehow, do we not all envy him the cheerfulness of his heart, and hope that it may be so with him as long as he lives?

And why should this not be true with us all? Should we not through all of life's changes maintain an attitude of good cheer? I know we do not always have sunshine without storm, skies without a cloud. This old world we live on keeps whirling around, and as it rolls on it is bound sometimes to pass through a period of cloudy weather, with more or less rain, snow and sleet.

How can we help being overcome by the hard things which overtake us? Here is the ground for one of the hardest battles we have to fight, but if we begin by winning in today's skirmish, the big fight of tomorrow will be easier to gain. And I know of no better way of doing this than by finding some good job and doing it with all one's might and doing it may be grubbing out an old stump, it may be putting one's hand under the elbow of a neighbor who is in hard lines; and it may be just by watching the turning of the furrow as we are plowing and making that the smoothest and best possible. And if we do it this way, by and by being good and kind and true and happy-hearted will get to be second nature with us. "We just can't help it."

More Readers on Farms in Pennsylvania than Any Other Farm Paper

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1830—The Tale of Nitrate of Soda—1930

By W. W. WEIR

THE year 1930 marks the 100th anniversary in the use of nitrate of soda in the United States. With the exception of lime and guano, this nitrogen fertilizer has probably been utilized the longest of the inorganic substances now commonly used for agricultural purposes. In 1830 but one ton of nitrate was shipped to this country; in 1900, 160,000 tons; in 1914, 606,721; and in 1928, 1,114,337 tons.

Various theories have been advanced to explain the formation of the vast nitrate beds, but none of them is safe from the cold-blooded analysis of science. One of the theories contends that the nitrate territory was once part of the Pacific ocean, but, during a volcanic disturbance, a portion of the water was hemmed in by the land and, as it gradually evaporated, nitrate of soda was formed. Another credits electrical storms for forming nitric acid from atmospheric nitrogen and oxygen which, in the soil, was turned to the nitrate salts. That the beds are the accumulation of drainage from the Andes is the view held by others, while some regard the deposits as the work of bacteria.

An ancient legend credits a tribe of Indians with accidentally discovering the nitrate deposits. In search of new hunting grounds, they were forced to camp on the desert at night. On building a fire they were startled to find that the flames crept through the ground, making a strange hissing noise. The Indians fled, thinking the desert to be inhabited by evil spirits. The chief, however, dispatched his son to tell a missionary on the other side of the desert about the mysterious happenings.

On analyzing the caliche with his crude apparatus, the padre discovered nitrate of soda. Sometime later he was amazed to find that one row of his garden crops was much taller than the others. Then he remembered that the caliche which he had not used in his experiments had been thrown out in the garden. As a result of this discovery he was able to announce to the Indians that the desert, instead of being inhabited by evil spirits, was a gift from Heaven.

This story would not be complete unless it was added that the Indians, unable to find better hunting lands, were saved from starvation by turning to farming, in which, under the leadership of the chief's son, they were able to renew the fertility of their soil by the use of nitrate of soda.

It used to be a popular pastime to speculate on the exhaustion of the nitrate beds. Some gloomy individuals foretold the time the deposits would be exhausted with as much courage as others have forecast the end of the world—and with as much error. According to geologists and engineers, who have carefully studied the nitrate fields, the present deposits are adequate to supply the needs of the world for many centuries to come, even though the present rate of consumption should be materially increased.

In its natural state, nitrate of soda is found in a stratified ore called caliche. It occurs only on a barren plateau in the Andes mountains of northern Chile, in an area that is about 450 miles long and which varies from 15 to 90 miles in width. The ni-

trate zone is as desolate as a desert, for it is entirely destitute of vegetation, water and fuel. The principal layers of caliche are found about three feet below the surface. It varies in richness from five to 70 per cent of sodium nitrate.

The extraction of this raw material is comparatively simple. The surface is broken up, usually by dynamite. In some instances steam or electric shovels are used for removing the layers of the earth covering the caliche and also for extracting the caliche itself. In other cases more primitive methods are used, even hand drilling, although

the model dwellings erected by the companies for the operarios, or workers, and the whole industrial community. About 70 oficinas are now in operation.

Recently a new process has been introduced into the industry on a large scale by American capital. It recovers about 90 per cent of the nitrate contained in the ore, as compared with about 55 per cent under the old process. In addition it permits the treatment of ore averaging as low as eight per cent sodium nitrate, contrasted with 15 per cent required under the old methods. By this step, alone, this new process has doubled the life of the deposits in Chile, for prior to its introduction, low-grade ore was cast aside and only the selected, high-grade material was treated.

The American capitalists now have in operation a plant based on the American idea of mass production. It produces 500,000 tons of nitrate of soda annually, as against 150,000 tons which represents the maximum production of the largest plant using the old methods. Every operation in this new plant typifies the latest American methods. As a result, one laborer working under this new process replaces three to four under the old, and one ton of fuel oil does the work of four to five tons under the old methods.

The product from this process is a pure white nitrate of soda containing about 99 per cent sodium nitrate. It is in the form of even-sized, shot-like granules, which may be easily applied to the field. Costs have been greatly reduced, as against the old methods, which in the end will mean steadily lowering prices for nitrate of soda to the consumers in the United States.

As found on the market, Chilean nitrate of soda ranges from red and dull grey to pure white in color, and is uniformly fine in texture. It is immediately soluble, one part dissolving in one part of water. It contains from 96 to 99 per cent sodium nitrate and more than 15 per cent elemental nitrogen. In this form it may be applied directly to crops or be used in a mixed fertilizer with equal facility and effectiveness.

Among American farmers, nitrate of soda is known by various names, such as Chile saltpeter, "soda," Chilean nitrate, and to some extent in the southern states as "guano."

Original Mine.—In 1818, George Smith, an Englishman, near Iquique, then Peru, opened on a commercial scale the first nitrate of soda mine. Two years later, small quantities were shipped to England, but were dumped overboard because of the high duty. In 1827, efforts were again made to introduce it into Europe, but without success.

First Importation.—One ton was delivered in New York in 1830, but, as its value was unknown, no sale was found for it. Shipments to both England and France were made the following year, nearly 8,000 tons being exported.

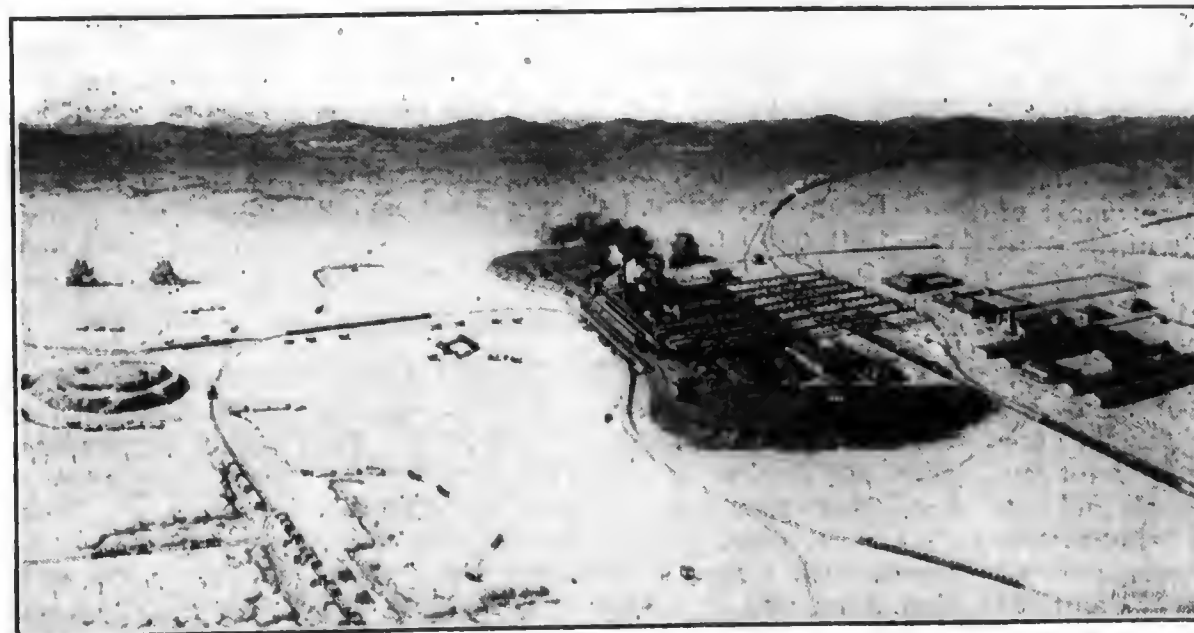
A picture of early farm life in America has been preserved for us by C. W. Marsh, inventor of the Marsh harvester, who in "Recollections of 1837 to 1910" describes conditions on his



Tugs which carry nitrate of soda to large ships.

these have been largely replaced by mechanical drills. The raw material thus mined is transported to a central refining plant. This is done by means of mule-drawn carts and light railways with steam locomotives. At the central plant the caliche is first crushed and then leached in huge evaporating pans. The recovery of the nitrate follows, after which the product is dried, sacked, and loaded on the cars for transportation.

A nitrate plant is known as an "oficina," though this term is sometimes restricted to the works. Actually, an "oficina" means not only the central plant where the raw material is precipitated and leached, but the complete establishment—the area which is being mined, the railway and other transportation equipment, the administrative offices,



A nitrate plant on Chile's barren desert.

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WOOD GAS

LAST fall a Swedish army truck, five and one-half tons, ran 144 miles in seven hours on the gas it generated en route from 297 pounds of waste wood chips. The total cost of the chips was 80c, while the cost of gasoline for a similar truck over the same route was five times as much. Evidently the possibilities of wood in industry have not yet been exhausted.

MRS. W. D. ZINN

AS we are about to close this issue a telegram informs us of the death of Mrs. Florence Swearingen Zinn, wife of our old friend and associate W. D. Zinn. She died at their home in Philippi, W. Va., on Sunday, February 2, after a long illness. We shall attempt no tribute to her here, as one will be found in the next chapter of the Story of Woodbine Farm. Mr. Zinn has the sincere sympathy of thousands of real friends.

NORMAL PRICES

NO doubt there are several things accountable for recent recessions in prices of livestock, but the fact that many consumers cannot buy freely at high prices is one of them. This side of the market is always an unknown factor until it becomes manifest in the course of business. Some authorities attempt to account for such changes by saying that prices are seeking a normal basis, but what is normal? We have never found anybody able to answer that question.

A FAIR SUGGESTION

AT the meeting of the Pennsylvania Association of County Fairs last week a county agent, L. F. Engle of Greene county, made some valuable suggestions to the managers. He showed that the classes provided for livestock and poultry waste a lot of money because many of these classes do not represent breeds useful in the fair's territory. He cited fair catalogues which offer premiums for 120 to 160 varieties of poultry, most of them not of service to the farmers of the community. He showed that some fairs offer prizes for breeds of livestock that have no place in the animal industry of that region and can have none. Mr. Engle did not advocate reduction of the amount of money devoted to livestock or any other part of agriculture. He believes in more money for the breeds which are useful to the people and less for the professional showman who carries many breeds merely to take advantage of this weakness of the fairs. Many other points of interest to fair managers were discussed, among them the abolition of passes and the

experiment of free fairs, both of which have been successful in some places.

DEFERRED JUDGMENT

THE Chamber of Commerce of the United States has decided to defer passing judgment on the operation of the Agricultural Marketing Act "until there is more definite evidence of its actual effect on private enterprise than at present is available." If the sole basis of the Chamber's judgment is the effect on private enterprise probably this course is correct. But some things are commercially wrong and the Chamber should have the courage to say so at any time. The policy of lending public funds without adequate security is clearly wrong no matter how benevolent its intent. The policy of market manipulation or virtual price-fixing, financed by public funds, is likewise wrong regardless of its purpose. The policy of creating and financing with public funds organizations to speculate—buy, hold and sell—is all wrong too. Why not have the sense and the sand to say so now or any time?

FARMING IN INDIA

IN reviewing his farm operations for 1929 Sam Higgenbottom, Principal of the Allahabad Agricultural Institute, says: "At one time we suffered from lack of rain, a month later from excessive rain, then from drouth again. The crows, green parrots, rats, jackals, foxes and porcupines left us about one ear of maize out of three. In order to get this much it had to be harvested before it was fully ripe. We had three men pumping calcium cyanide gas into the holes of rats, porcupines, foxes and jackals. Two men with shotguns used hundreds of cartridges. My son Henry's record shot was eleven green parrots from one cartridge." In spite of all natural or seasonal conditions in "a bad year" Sam reports a "comparative success" in farming and says that the Institute's farm "demonstrates what we are here to teach and is an open page which any book-illiterate farmer can read."

THE AGRICULTURAL OUTLOOK

ON another page of this issue is the official summary of the agricultural outlook for 1930 as prepared by the Bureau of Farm Economics, the colleges of agriculture and the Federal Farm Board. In practically all major lines of production the outlookers either directly or indirectly warn against increases. The exceptions are flaxseed, rice and broom corn, none of great interest to the producers of this region. We cling to the idea that it is not the proper function of any official body to make such predictions and give such counsel. We believe that it is the proper function of our officials to give correct information, leaving its interpretation to those who are financially interested in and responsible for production. We believe, moreover, that the composite wisdom of those thus responsible is better than the opinions of those not so responsible. Fortunately the outlookers do give us some interesting information; and, fortunately again, farmers are not paying much attention to their advice.

MARKET THINKING

THOSE who propose legislation against short selling remind us of a speaker who charged that foreign wheat buyers depress our market by selling short millions of bushels, so they may buy on the lower basis they thus create. We asked him how much wheat such a man would have for exportation if he sold a million bushels short and bought a million bushels later. His answer showed that he forgot the important truth

that every short seller must become a buyer of the amount he sold. He overlooked the fact that this operator would not have a bushel of wheat to export until he had bought a million bushels to cover his short sales. Many persons who have not studied our exchange system of marketing fail to appreciate the service the short seller is compelled to render because he is compelled to buy. They forget that such buying is just as important an influence one way as selling is the other way. They think and talk of the amounts sold, forgetting that just as much is bought as is sold and vice versa. Our market thinking would be clearer if the systems so frequently denounced without study were studied. They deserve study, for they are the result of the experience of the world's best business men.

FROM LIFE

A FEW years ago a certain man died leaving a considerable estate. Among his holdings his executor found securities with a face value of \$125,000 but of little market value. He sold the lot for \$5,000 and it proved to be worth even less than that. This is an extreme case no doubt; but of what value are the securities of carriage factories, breweries and distilleries, most organ and piano factories, obsolete traction companies, oil and gas companies without production, mining companies with exhausted mines, mercantile houses no longer needed in modern business, etc.? Most of the securities this man left had once paid dividends but new inventions and business changes had left the companies without capacity to earn money. The capitalist must face risks just as the rest of us do.

HOG FUTURES

THE experiment of future trading in hogs begins at Chicago March 1st. Rules to govern such trading have been approved by the Packers and Stockyards Administration. These rules provide for a clearing house to supervise the trading and to make any necessary adjustments in it. Three deliveries are provided for—"spot," under which delivery is made the day of sale; "to arrive," under which delivery must be made within seven days; and "futures" under which delivery may be made, at seller's option, on any business day of the month specified. The carlot of 16,500 pounds is the unit of trading and four classes of hogs may be specified in contracts for future delivery—light, medium, heavy and uneven weights. Further details of the plan will be found on another page of this issue.

It is evident that the rules apply to Chicago and other western markets rather than to eastern markets, where hogs classed as light weigh less than 170 pounds, but probably no future trading is to be expected in the latter markets under any circumstances. To make this system effective at least three classes of traders are essential: (1) Producers or shippers who may insure their future price by selling for later delivery. (2) Packers or dealers who insure their future supply and price by buying for later delivery. (3) Speculators ready to buy or sell at any time and so furnish opportunities for the other two classes to buy or to sell. Thus far the probable course of the packers has not been indicated. It may depend somewhat on their ability to make future contracts for hog products. There is some question also whether a group of speculators, such as operate in grain, cotton and other markets, will arise to operate in hogs. Probably this development will take time, and too much should not be expected in the early days of the new system. One thing appears certain—that the new system will be denounced as gambling in hogs if it ever amounts to much.

NEW JERSEY potato growers are already beginning to wonder to expect from the potato sections in 1930. The potato acreage in New Jersey has gradually been decreasing since 1925, and growers are advised to maintain the acreage of the year. The early potato section is not as well stabilized as the sections of Eastern Shore. The crop may have up to 100 bushels per acre. The best to New Jersey is from the "Many Potatoes," which can directly make statements to provide food for the year 1929 over the normal growth, some more economical method for more investment in the market debacle in 1929. There is only one outstanding concern: 1929 was a potato year and the market was not, and the banking elements offer final proof necessary, of that nature.

Every intelligent man on the Shore has the reasons for success of 1929. The failure of the market has been over and over. Short courses have been held to him. Federal Farm has advertised for him, the range and independent dealers have been written every known fact of dissemination. Every farmer knows to increase acreage this year will be his own ill-doing. Also knows that only way for the acreage of to be maintained for each farmer, the large or small, to cooperate. We ask again the question: "How many hogs in 1930?" Farmers must answer, and it will soon be for them to answer. And upon the answer hinges success or the failure of the year. We hope it will be not to increase the potato acreage."

THE selection of good hogs emphasized by foreign buyers in purchasing has inclined to select more than within the desired animals. The records completed by the American Association of Hogs and Poultry Raisers presented by the advanced figures in the yearly dividend. The average of 5 pounds of butterfat per hundred pounds of live weight and yearly dividend of 31.392 in number of yearly records averaged 56.8 pounds of fat in 347 days. In the averaging 14.13 pounds of butterfat, and these figures clearly

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NEW JERSEY potato growers are already beginning to wonder to expect from other potato sections in 1930. The potato acreage in this state has gradually been reduced since 1925, and now growers are advised to retain the acreage of the year.

Other early potato sections are not as well stabilized as New Jersey. The effects of Eastern Shore growers and the effect of crop may have upon the market is always of interest to New Jersey potato growers. The following editorial from the Eastern Shore News, "Many Potatoes," presents one of their problems which can directly affect our growers:

"Banking statements published two weeks ago provided food for thought for Eastern Shore growers. An increase of \$1,592,499.33 in deposits for the year 1929 over the year 1928 was the cold revealed. Without doubt some of that increase in normal growth, some of it may have been due to more economical methods, a good strawberry crop or more investment. On the other hand the market debacle in November and December probably lowered the total of deposits. To the extent there is only outstanding condition: 1929 was a potato year and 1928 was not, and the banking statements offer final proof if final proof necessary, of that condition.

Every intelligent grower on the Shore knows the reasons for success of 1929. They have been over and over. Short courses have been held to impart them upon him. Federal Farm has advertised facts for him, the range and independent dealers have read him, editorials have been written every known fact of dissemination. Every farmer knows to increase acreage this year will be his own ill-doing. He also knows that the only way for the acreage of to be maintained for each farmer, either large or small, to cooperate. We ask again the question: 'How many does in 1930?' Farmers must answer and it will soon come for them to answer. And upon answer hinges success or the failure of the year. We hope it will not increase the potato acreage."

Selection of good herd sires has long been emphasized by foremost dairymen and breeders. In purchasing herd sires buyers frequently inclined to select them from distant places rather than within their own state. The thought desired animals cannot be found in the home state is not necessarily true and is proved by the records completed in the 10-month and yearly divisions of the advanced register of the Holstein Association for New Jersey. Figures presented by W. R. Robbers, who has charge of the advanced registry work in the state, show in the yearly division a total of 119 animals produced an average of 15,712.5 pounds of milk, 5.56 pounds of butterfat, and 3.39 per cent fat. Advanced registry records completed in the 10-month and yearly divisions over the entire country show 31,392 in number. Of this number 23,639 yearly records averaging 16,703.6 pounds of milk, 5.56 pounds of butterfat, and 3.39 per cent fat in 347 days. In the 10-month division 7,753 averaging 14,139.4 pounds of milk, 476.4 pounds of butterfat, and 3.37 per cent fat in 298

These figures clearly prove that there are many

good foundation animals of this breed in New Jersey. And a buyer selecting a herd sire within his own state has an opportunity to see the animal and its dam.

ONLY ten per cent of all the fluid milk sold in the New Jersey Metropolitan area is sold as raw milk according to a survey of the New Jersey Metropolitan area made last year by the Experiment Station. It was also found that six per cent of all milk going into this area is on the direct haul basis.

A little over a year ago a complete survey of all the dairy farms in Hunterdon county was made by the Experiment Station under the direction of Professor C. B. Howe. In this county it was found that nearly one-half of the herds contained less

than one inspection service while 6 per cent were missed entirely. He pointed out that this duplication of inspection was probably one of the most deplorable practices in the territory and that the only solution for this problem was a uniform health code.

An effort is being made by the Dairy Advisory Council in New Jersey to work up a uniform code at the present time.

A SPECIAL one-week course in the testing of milk and its products is being offered at Rutgers to dairymen, creamery inspectors, herds- men, and others interested in the work. This course, beginning on February 17, prepares students for the state license examination for operating the Babcock test for milk, cream and ice cream.

A COURSE in turf management, designed to meet the needs of greenskeepers, members of greens committees, estate managers, and others who are interested in knowing how to maintain lawns and turf in the best of condition, is again being given at the college of agriculture at New Brunswick beginning on February 24.

The increasing need for training of this kind was apparent last year when the course met popular approval and 54 students took the one-week course.

THE Eastern Guernsey Breeders' Association held their twenty-seventh annual meeting last Friday at the Hotel Adelphia in Philadelphia. Here members of this old breed association again gathered, not for business purposes alone, but to renew friendships.

M. M. Hollingsworth, who has been secretary of the association since its birth, was again re-elected to that office. E. T. Gill of Haddonfield, N. J., was elected honorary president; Walter Smedley of Media, Pa., president; G. H. Hibbard of Brookville, Md., 1st vice-president; H. G. Haskell of Wilmington, Del., 2nd vice-president; and M. E. Leeds of Philadelphia, Pa., treasurer.

Robert Scovell, President of the American Guernsey Cattle Club, was present at the meeting. Mr. Harry Hayward presented to the breeders some thoughts to keep in mind when selling breeding stock. He pointed out the fact that most herd sires

are purchased on the merits of the dam's production record.

THE 989 pullets comprising the Vineland Egg-Laying Contest established a new high record during the sixteenth week by laying 4,726 eggs for a production of 68.26 per cent. This is the fourth consecutive week that a new high record has been established in the Vineland competition. Last week's production was 68.19 per cent.

Four New Jersey-owned flocks are listed on the honor roll of high scorers for the sixteenth week. Louis E. Schaible's Rhode Island Reds from Shiloh, with a lay of 60 eggs, stand second on the honor roll. Two pens of White Leghorns owned by C. W. Brown, Vineland, and E. J. Rubright, South Sea- ville, each laid 58 eggs to tie with a Pennsylvania entry for third place. Another flock of Leghorns from J. D. Eno's Grasmere Poultry Farm, Vine- land, laid 57 eggs to tie with a Michigan entry for fourth place.

The Woodview Poultry Farm entry of Rhode Island Reds from Mount Holly, with a score of 827 eggs to its credit, ranks first in total production among the New Jersey entries in competition.

New Jersey Farm Comment

By G. W. HARRIS

Master Farmers of 1929



HERE are the Pennsylvania, Delaware and Maryland farmers who received the Master Farmer Award for 1929 at a dinner given in their honor in the Ballroom of the Penn-Harris Hotel in Harrisburg on Thursday evening of State Farm Products Show Week. The group also includes the New Jersey Master Farmers who received their gold medals during Farm Week in Trenton a week earlier. Nearly 350 persons attended the Harrisburg dinner as guests of the Pennsylvania Farmer.

Standing, left to right: Charles F. Preston, Lancaster county, Pa.; Guy L. Hayman, Chester county, Pa.; Henry F. Garber, Lancaster county, Pa.; Ray C. Norman, Harford county, Md.; Franklin G. Rue, Monmouth county, N. J.; James Ewart, Middlesex county, N. J.; Alfred Sloan, Salem county, N. J.

Seated, left to right: Norman E. Rishel, York county, Pa.; George M. Anthony, Berks county, Pa.; Guy A. Leader, York county, Pa.; John D. Reynolds, New Castle county, Del.; Harvey C. Kreitz, Crawford county, Pa.; C. E. Bauer- master, Somerset county, Pa.

First row: John C. and Andrew T. McDowell, Mercer county, Pa. At left is Samuel L. Smedley, Jr., Delaware county, Pa.; at right, Charles Fitting, Atlantic county, N. J.



than ten cows, and that the biggest single problem in making a high quality milk which would be put on the direct haul basis, is lack of cooling facilities. The northern part of Hunterdon county showed that 20 per cent of all dairymen were using a tub in which to cool their milk, 70 per cent were using well or spring water and 10 per cent were using ice. In the southern part of Hunterdon county, which included all the county except Readington, Clinton, Tewksbury and Lebanon townships, only three per cent of the dairymen were using ice, 43 per cent used the tub or still water method while 50 per cent used well or spring water.

In the four northern townships 12 per cent of the dairymen reported milk rejected for some cause or other during the year while 23 per cent in the Southern section reported the rejection of milk. Professor Howe pointed out that one of the biggest factors in this situation was the lack of a uniform health inspection. He found that in the four northern townships and part of Warren county one-third of the dairymen reported more than one inspection service while 20 per cent had no inspection service. In the southern half of the county 57 per cent of the dairymen reported more



A vital decision in the popular pastime of "barnyard golf."

Put New Life Into Your County Fair

By BETTY ECKHARDT

DOES your fair need a "doctor?" Take West Virginia's advice and try a little home talent entertainment. They know from five years of experience that the way to win the interest of the people in the fair is to give them a part in it!

Five years ago county fairs throughout the state faced the problem of decreasing attendance in spite of the "bigger, brighter and noisier carnivals," and more expensive free acts. A few secretaries were brave enough or perhaps desperate enough to invest a little of their "free act" money in home talent entertainment. Since that time thirty fairs have included some home talent in their programs and the objectionable features of the carnival have been largely eliminated.

Pocahontas county boasts of a fair "built on Community Pride not Prizes." Each one of the four districts acted as host for one day at the fair and provided the "free acts." The people themselves acted as judges and at the end of the week each district had its own opinion as to "who put on the best show," so everybody was happy!

A "Fool-Proof" Free Act

"The Old-Time Singing School" put on by Huntersville District at the Pocahontas Fair was one of the big hits. The singers were well prepared, for they had practiced in their community chorus throughout the winter and spring. No costume house was necessary in dressing up for the affair. Almost every attic in the district had a gay Easter hat of the late nineties or a dress with "leg of mutton" sleeves or a cut-away coat from somebody's wedding or a derby that had escaped being sat on. The enthusiasm with which this "act" was received was so great that the carnival manager was about ready to take them "on the road" as a "big attraction."

Try a Circus Day Parade

When a substantial livestock farmer turns into circus manager and wears a high silk hat; when the minister's wife acts as gypsy fortune teller, and you are conscious for the first time of the sparkle in her eye; when you can recognize the grocer's bow legs as the hind legs of the elephant; what commercial free act can compete?

The whole neighborhood joined in making the circus day parade a success. The school band, a little more gaily attired than usual, led off. Most ferocious lions (in labeled cages so that there could be no mistake), monkeys, elephants, giraffes, snake charmers, gypsy fortune tellers, "fat ladies," tall men (on stilts), bearded women, and "freaks" of all kinds passed in review. The parade also gave a splendid opportunity to show off the educated pony which could recite count and dance, pet rabbits and guinea pigs, the goat that could pull a little cart, the wild animal trainer with his pet crow and "Billy Coo" and every extraordinary thing in the neighborhood. No "real circus" was ever greeted with so much en-

thusiasm or spoken of so many times afterward. On the "mid-way" the Little Theatre was the most popular side show. Twenty-minute shows brought in an astonishing number of dimes. The talent included short plays, minstrels, choruses from high school operettas, folk dances, drills, amateur "magicians," tumbling, quartettes, small orchestras, and solo numbers of various kinds. This made an excellent place too for the old fiddlers' contest and the demonstration square dances and jiggling contests. The only problem was that of getting the people to go home at night after the invitation for demonstration square sets from the audience was given.

Night Events

Few people will ever forget the beautiful night pageants in front of the grandstand. Most of them were built around local history by the people themselves. The one which portrayed the Pocahontas and John Smith episode was written by a direct descendant of Pocahontas and several of the great, great, great "grands" were in the cast.

Pocahontas folks were strong advocates of games of skill, but not of the carnival variety. They prefer to see who is the community champion at horse shoes or which district team can surpass in soccer, football or baseball, or which fisherman can win in the casting tournament.

Fine saddle horses are still quite plentiful throughout the county and the fair brings out the best of them. Of course there are the usual horse races, but there are classes too for the farm saddle horse that can jump ditches and open gates. There are gentlemen's saddle classes also and ladies' saddle classes and special classes for boys and girls. Old-time riding tournaments where the winning knight crowns the "queen of love and beauty" are being revived.

Potato races on horseback prove to be even more thrilling than professional polo games.

The carnival hasn't been eliminated entirely, but it has changed its "stripes" so that it really shouldn't have the same name as the old gambling.



"Barnyard Golf" Makes a Splendid "Free Act."



The county champion. He plays "Turkey in the Straw," "Sour Wood Mountain," "Cluck Old Hen."

"girl show" variety. They carry "rides" for adults and special ones for children and a variety "games of skill" for some of the "smart alecs" "cut their eye teeth" on. The carnival managers are delighted with the large crowds that talent brings to the fair and are glad to cheer up and give the people what they want.

The most significant thing about West Virginia fairs is that they form a splendid means of encouraging a fine type of recreation program throughout the whole year. Choruses, drama groups and music groups practice diligently during the winter and hold local contests to see who will play at the fair. As soon as spring opens "barn yard golf" is the most popular pastime around the country store. Soccer football and baseball leagues begin early in order to be ready for the fair.

West Virginia has proved that in order to be successful a fair must be a "people's fair." Exhibits must include the best in music, dramatics and athletics as well as the best in agriculture and home making. Secretaries have agreed that all of this kind needs no "rain insurance."

The Agricultural Situation

THIS has been a very fine winter day. The ground is frozen well. Three or four inches of snow lies everywhere. The thermometer near zero at daylight, but responded admirably to a bright sun and by noon the temperature was only half a dozen degrees under freezing.

The countryside is prolific of whole fields of still in the shock. Manure piles may be seen the hundreds. Most woodlots have visible fat trees scattered about. Not a fodder stack nor commendable supply of neat fodder shocks for feeding at the barn were to be seen in a day of thirty miles. Nobody at all in the country seemed to be working, teams everywhere seemed to be softening up in the barns and around straw piles.

It is flagrantly impolite to call attention to one's condition of affairs. In ring parlance one might be accused of striking.

On a farm in southeastern Wisconsin, the county farmer below the line dug up a square foot of quack grass and weighed the infested soil and weighed the roots. After they had been dried and weighed the roots weighed over 2½ ounces. The farmer doesn't seem like much but mulch it by 43,560 square feet in an acre and it amounts to more than 100 tons of roots on one acre of land. The county agent figured that each ton of quack took \$5.30 worth of plant food from the soil. On this basis was \$18.55. That's an example of what it costs to feed a quack crop of quack grass. A cultivator equipped with spring teeth was used on this farm to check the quack.

The University of New Hampshire announced just recently a method of killing quack grass which they have found successful. They used a special spring-tooth harrow which lifted rootstalks out of the ground and brought them to the surface to dry out. To start at the beginning, they first plowed the ground immediately after haying. That was in 1928. Every ten days or two weeks during the winter months they used the special weed harrow and gradually worked the weeds out of the ground. Since then they have had no trouble with quack grass.

The men who conducted this test in New Hampshire say that they consider the special spring-tooth type of weed harrow much more efficient than quack grass than the ordinary spring-tooth harrow or the disk harrow. These other implements have their place in preparing the seed bed, of course, but they were not designed to control quack.



A field cultivator equipped with stiff teeth is an efficient weed destroyer.

Machinery to Kill Weeds

By BERT S. GITTINS

harrow or the disk harrow. These other implements have their place in preparing the seed bed, of course, but they were not designed to control quack.

Here is the way one large operator in the Northwest cleaned up a farm which was literally overrun with quack grass. He first plowed the ground to a good depth—six or seven inches. Then he harrowed as often as possible, first lengthwise of the furrows so as not to tear up the sod. After the soil was well pulverized, he started harrowing crosswise. He used a spring-tooth type of quack grass harrow, going a little deeper each time over and bringing more roots to the surface. Whenever possible he tried to harrow when the weather was hot and dry so that the sun could have a better chance to kill the quack grass rootstalks.

Storehouses of Food

Rootstalks of the quack grass plant are really storehouses of food. They grow much like runners on a strawberry plant except that they stay



A spring-tooth type of harrow digging out weeds.

underground, and new plants spring up from the nodes or joints in these rootstalks. Quack also spreads by means of seed but it is these underground stems which cause the most trouble.

Quack grass isn't the only serious weed pest, however. All weeds are bad enough, but some of the worst are Canada thistle, sow thistle and bindweed. Dr. L. H. Pammel of the Iowa Experiment Station considers Canada thistle the worst weed in his state. For this weed and others similar to it, Dr. Pammel recommends deep plowing in July or August, harrowing with a spring-tooth harrow and then raking and burning the roots. Next, he says to smooth the ground with a disk, and harrow once a week until freezing weather. More harrowing can be done in the

spring until time to put in the following crop, which should preferably be a heavy smothering crop like Sudan grass or sorghum.

It might be well to say something about the new harrows and cultivators which appear very promising in the control of noxious weeds. The field cultivators were first used in the wheat country for killing weeds in summer fallow. Out there they are called "duckfoot" cultivators because they are often fitted with wide-nosed "duck-foot" shovels which

are especially suited to shave off weeds. These field cultivators range in size from six to twelve-foot widths. The teeth are carried on a strong frame supported by wheels. These cultivators may be fitted with either spring teeth or stiff shanks equipped with various types of shovels.

The harrow type of weed killer is similar to a regular spring-tooth harrow except that the teeth are designed to point forward and to lift weeds and roots out of the soil.

Other types of implements have been used successfully at times to kill weeds such as quack grass, the one-way disk for example. But no matter what tool is used, killing out quack grass and similar pests takes a lot of time and work. Once or twice over the field does little good unless the job is continued. Use of the right kind of tools naturally makes the work quicker and surer.

Tests with Chemicals

CHEMICALS for killing the more aggressive perennial weeds have been attracting considerable attention in recent years. Sodium and calcium chlorates seem to give the most encouraging results, although there is still much to be learned before they can be recommended with confidence for all conditions. Comparatively small amounts, 100 to 200 pounds per acre, of these chlorates, dissolved in water and applied as a spray, seem effective in killing the foliage. They also seem to penetrate the root through the plant tissue and have a poisoning effect which may result fatally.

In some tests the use of 300 pounds of sodium chlorate in one season has not seemed to interfere with the growth of a crop the next year. In other cases, especially the past dry summer, 200 pounds applied the year before seriously injured corn and potatoes. Sufficient amounts of oil, salt, or arsenicals to secure the same results in killing weeds would render the soil infertile for several years.

There is a fire risk involved in the use of sodium chlorate. Calcium chlorate mixed with the sodium chlorate renders it very deliquescent and removes this risk. Such a mixture is being sold for weed eradication.

In Kansas experimenters secured almost complete control of bindweed by three applications of 100 pounds per acre of sodium chlorate as a spray dissolved in 100 gallons of water. The applications were made at intervals of about three weeks, or as often as the renewal growth attained a length of six inches. In New York fairly good control of Canada thistle was reported from a single application of 150 to 200 pounds, either wet or dry. However, on the larger and more aggressive type of Canada thistle, which is attracting unfavorable attention in Pennsylvania and Ohio, two or even three liberal applications have not always been successful.

J. B. R. Dickey.

"I CAN'T explain now," said Toots. "But you come with me and you'll see something. You won't get into trouble. I'll do the talking and all you need to do is to stand around and watch what happens."

If not perfectly reassured Hoskins' curiosity at least was sufficiently excited and he concluded to accompany Toots to the store. Within a few minutes they picked up Steve Harte and Phil Franklin, whose interest Toots piqued by the same method that had been successful with Hoskins. After that, having a nucleus of four, it was an easy matter to enlist other recruits and by the time the store was reached the crowd, like a snowball rolling down hill, had magnetically attracted to itself a number of persons who hadn't the least notion what the stir was about. Something seemed to be on foot, otherwise there wouldn't have been any crowd, and this was a good enough reason for tagging along.

Toots entered the store while his mystified and rather uneasy followers halted before the steps. Tigert happened to be alone at the moment, and hearing the door open, laid down the newspaper he was reading with the brisk air of the efficient salesman, but sank back into his chair doggedly as he recognized the visitor. An expression of uneasiness passed across his face, which immediately became fierce. He pointed to the door.

"Get out o' here," he said harshly. "Want me to throw you out again?" he started to rise.

"I'm not alone, Capt'n," smiled Toots. "There are about twenty friends of mine who are coming in when I give the word. They've got an idea there's something worth seeing here—where you keep the Red Mill flour, maybe."

Tigert started as if he had been pricked with a pin and his eyes wavered furtively. "What d'yer mean?" he stammered thickly. "Friends o' yours—comin' in—in yer?" He moved toward the window in a kind of crouch and took one look. His leathery yellow cheeks went ashy.

"I'm going to ship tonight with Capt'n Crumb and I reckon I won't have another chance to come for my two hundred," observed Toots meaningfully.

Tigert seemed to weigh this with frowning concentration for a tense moment. Then he walked to the safe and opening it, took out the envelope in which the money had been placed. "I was plumb mad then," he said as he handed it to Toots. "But I never meant to keep it. You know that, don't ye?"

Toots ran over the bills, finding the amount correct. He went to the door and as he put his hand on the knob Tigert, clearing his throat, spoke again: "You aint aimin' to have no trouble with me, are ye? It might prove right serious for you, sonny. You got your money an' that makes us square, eh?"

"Think you're square with the town, Capt'n?" retorted Toots.

HE went out quickly. The crowd was already pretty restless and showed an inclination to melt away. Some of them were grinning foolishly. They had come to the conclusion that the joke was on them. Hoskins called out:

"Well, what's up? When does the show begin?" "Why, I'll tell you-all," said Toots. "The Capt'n owed me some money and he wouldn't give it to me. But he forked it out quick enough just now, when I said there was some friends of mine outside kind of curious to sample that Red Mill flour. I reckon you never did buy any Red Mill, nor won't either, less you join the fleet. Maybe then you'll find a prize in your package."

Some of the crowd laughed. The impression that the whole thing was a kind of April fool's joke seemed to be spreading, but there were several who looked thoughtful, and one of them called after Toots, who was walking off: "Here you! You've either said too much or too little. We-all want some explanation of this."

"You'll find it if you-all look hard enough," said Toots, declining to stop.

Daddy Simons was out on a job when Toots reached the cottage on the lagoon shore, but Nancy was at home, and very sorry to learn of his leaving Tigert's. But when Toots explained that, setting aside his personal relations with the proprietor, he refused to associate with any boot-legger, she agreed vigorously. She had all a decent girl's dislike for such a character.

"I wish you wouldn't go with that Crumb till it's been proved on Tigert," she exclaimed. "You could help. You're quite sure he does sell it, aren't you?"

"I know he does," said Toots. "He's been ready to jump out of his skin, or cut me out of mine since I first spoke about Red Mill. That flour isn't listed. I looked it up to see. Where he gets it from's his secret—one of his secrets. Another's those queer entries. If you want to know what I think, it's this: those figure 5s stand for five

A Thinking Job

By Fisher Ames

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dollars—five dollars extra per bag. That's why I told the crowd they might find a prize in every package. If you think a quart of hooch is a prize."

Nancy promised to take good care of what belongings, including his books, he meant to leave behind. Toots decided to take with him The Voyage of the Beagle and a manual on shells for collectors, the latter of which was among the volumes he had selected from the Broad View library. The choice did not please Nancy at all, and being a young person who spoke her mind freely, she told him so.

"Oh, Toots," she sighed. "I wish you'd take some really worth while books. Those two will only encourage the rolling stone in you."

Toots gave one of his rare laughs. "They encourage the thinking part of me anyways," he retorted. "Now don't you worry none about that rolling stone. I'm going to look into the oyster business and maybe invest in it. Here's the two hundred, and fifty more I've saved out of what Tigert paid me. I want you to keep it till I know how I'm going to use it."

With a good deal of trepidation and after some argument Nancy consented to take the money, which she said she would give her father the instant he came home. Also she insisted on making out a receipt, which she solemnly signed and handed to Toots.

"You really save your money awfully well if you do roll," she said admiringly. "I wish you could find some good thing here you could stick to—forever and ever."

"Maybe if the oyster business don't pan out right I'll come back and start a gunners' boarding house with you and Daddy," replied Toots jestingly. They had stepped into the ell kitchen where Nancy was



The Cheerful Plowman

A WOMAN'S WORK

I USED to think a woman's work was easy stuff to do. I used to chuckle and to smirk, to snicker through and through, when women talked about the jobs that they performed on earth, like cooking corn upon the cobs, and frying beans of worth.

I smiled when they would talk of brooms, of dust-pans and of spoons, as if those things were large as looms, extremely weighty tools. And when they talked of ironing shirts as heavy, heavy work, or putting plates in flimsy skirts as tasks they'd like to shirk, I simply had to laugh outright. 'Twas all that I could do, I had to laugh with all my might and shout, "Too-hoo! Too-hoo!"

"If women had to deal with plows and buckskin mules," I said, "or had to tussle with the cows, or bronchos seeing red; if they were forced to lift on rocks, or pry on stubborn stones, or shovel from a wagon-box a load of mud and bones, they then would learn that work is hard, that so-called work is play, that sewing buttons on a card is not like pitching hay!"

So much for that, but listen now to all I've learned of late, and then you'll see just why and how I've changed my mind and gait. The other day I thought I'd iron my shirt, and pants, and tie, and by the Saints Jerome and Byron, I nearly had to die. I stood beside the ironing board until my legs were numb, until each muscle, vein and cord was strictly on the bum.

At first it seemed a dainty job, a job a child could do, but I was strictly on the bob before one shirt was through, and when I started on the pants, I lost my mind, I guess, and stood there in a semi-trance, like some one playing chess. I stood there tired and nearly dead, all bushed and fagged and sore, while that old flat-iron, heated red, burned through and struck the floor!

J. E. T.

craft. Crumb purposely left most of the work getting under way to Toots. He seemed pleased with the way the boy handled the boat. For part Toots was favorably impressed by his employer, who was a silent, serious-minded, well-known as a total abstainer, and rather religious, a trait that was enough in itself to set apart from the majority of his fellows. Toots heard him spoken of as the Goose King. He was a crack shot and the most successful wildfowl hunter of the fleet. He could imitate perfectly note of any game bird.

The sharpie drew away from the town, slipping through the water swiftly and silently. Toots forward and flattened the jib. Then he returned and stretched himself on the deck alongside the little cockpit. The wind struck him as cold and asked Crumb if much ice ever formed in the waterways.

CRUMB looked at him with an eye as circled a duck's. It gave Toots a little shock. He never heard that the Captain was a "simple" there was that in his glance that made Toots feel he couldn't be quite all there. There seemed no end to the odd characters one ran into on Mink Island.

"You get your bellyful of ice here sometimes," said Crumb. "I've seen it freeze clear down to top of the flats. I don't see why the good Lord created it. No, I don't. It seems like a cruel trick for Him to have done."

Crumb's voice showed so much feeling for Toots let the subject drop. They were running rectly north, the sharpie reeling off the knob in clever fashion. The waterways were steadily rising up and growing wider while the number of marshy islets lessened. The ebb tide flowed. It was easy to distinguish the darker curving of the channels from the light areas above. A few curlew and "brown backs" were winging, all heading toward a high bar where mallards sounded at intervals from the creeks.

The sharpie pushed her thin nose into a bay-like body of water, roughly oval, and seven or eight miles in length. They must be this, Crumb remarked, to reach Mink Island, which his shack or watch-house stood. The crew were local people. They had a home on the land south of Carrbury, and this house on marsh. The brothers did not live aboard their boats as did so many of the oystermen, who came to distant points up and down the coast—"all the lot," as Crumb said—and stayed on the ground for six to eight months at a time.

Mink Island loomed up plainly when they reached the middle of the bay. It was a bit of marsh of not more than fifty acres in extent, showing at the moment abrupt muddiness and a level top covered with coarse sedge. The highest tides it was completely under water and for this reason the watch-house, only structure on the little islet, stood on wooden legs like a forlorn and lonely one. Toots presently observed a man descend the bank and walk down to an indentation in the shore where a number of punts and other small boats were lying.

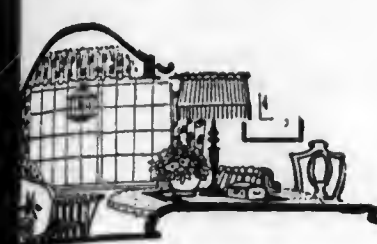
"That's Bartlett," remarked Crumb. "I never he's plumb out of terbaccer an' just can't get a smoke."

The surmise was correct, for when they shot into the little cove the man made a word of his hands and shouted something in which word tobacco was distinguishable. Crumb replied by a reassuring gesture. With her sails the sharpie lost headway and came to rest as the anchor splashed overboard. Bartlett, who pushed out in a rowboat, came alongside and delivered the various bags and packages. He opened one and taking out a plug of tobacco began to slice it into his palm.

"Thought I'd tell ye Sheppardson was here," he said. He stared fixedly at Toots. Then he turned to Crumb, making a slight jerking motion with his elbow and dropping one eyelid at the same time.

Crumb, with his immovable face, said: "Is Toots Pouche, Bart. He'll be one of us Sheppardson's here?"

(To be continued.)



When We Were in Harrisburg

By GERTRUDE S. STEWART

It was such a good time we women folks had in Harrisburg. We wish every reader of these pages could have been there. To have the products on display—the many shining luscious fruits and vitamin-filled vegetables, stacks of pretty dresses so well made, the many night gowns and slips, the golden corn and honey, the eggs and poultry, baby beavers other prize-winning stock, maple products and products—yes, the exhibits alone made the worth while.

There was much more to it. We saw many things to inspire and arouse us. We heard a great deal that will keep us thinking along new and better ways for a long time. We farm women with so many similar problems were brushing elbows during these times when anticipating the next address: we were leaving old friendships and making new ties. We were laughing, thinking, listening, relaxing, dreaming, and so on.

Some of us will be better wives and mothers—more genuine homemakers, because we went to Harrisburg.

About Daughter's Room

One of the exhibits where we stopped a second time was the project for girls taking advantage of Extension work. The farm daughter's room was "dressed up" and less than ten dollars did the trick in clever figures.

The single bed was transformed into an attractive day bed by ingenious use of burr feed bags. A home-made robe made us forget the endless room. It was a closet in proud of—neatly made quite decorative with its shoe bag and modern laundromat bag that unbuttons for the day emptying.

Time-made lamp shades about the eye of every visitor, one of them had its fixture fastened in a quaint jug. The vanity dresser was made by using wire crates, well placed and neatly covered and painted.

If you have a daughter, you might like to try putting up her room. Let the State Extension office help you. They have the plans and measurements and can save you time, trouble and expense.

Three Thousand Turkeys!

One of Pennsylvania's ambitious women, Mrs. George Lohr Johnson, was crowned Queen of the Turkey Kingdom. And no wonder for she had a flock of more than three thousand fine birds. She is a school teacher, too, so we must indeed praise her for splendid work and unusual ambition.

Many enthusiasts attended the meeting where the turkey boys went under discussion, and no doubt the year's decision as to who merits the turkey title.

Whether your central interest is poultry, potatoes, vegetables, bees, sheep, cattle, horticulture, or Poland-Chinas, there were special sessions with addresses and discussions fitting the need.

The Society of Farm Women

This group is planning to double its membership this year, and among their studies for the year will be the turkey, the bees, and the industries of their own communities, and to the institutions of their own times.

Their resolutions include beautifying the farm home, awakening the women to a higher sense

The Farm Home



The Big Job of the Farm

By HEPSY NEFF

AFEW days ago the following letter reached me: "I would like to know the best way to render lard. How long should it be cooked and why does it become strong sometimes even when not very old. I usually put my lard in empty tin coffee cans. It seems nice and white but after a few months it has a strong odor. We expect to butcher soon and I would like to have this answered as soon as possible."

Because of the request for an early reply I took up Farmers' Bulletin 183: "Meats on the Farm; Butchering, Curing and Keeping," quoted the following directions for trying out lard and mailed it at once to the writer. The extract follows.

"Only the best of fat should be used for choice lard. Leaf fat is best. The back strip of the side also makes nice lard and also the ham and shoulder and neck trimmings. Gut fat should never be mixed with leaf fat and back fat. It makes a strong smelling fat and should be kept separate."

All scraps of lean meat should be cut out of the fat before trying out as they are likely to stick to the kettle and get scorched, giving an unpleasant flavor to the lard. When preparing the fat cut it in pieces from one to one and one-half inches square. They should be nearly equal in size that they may finish at the same time. Fill a clean kettle about three-fourths full of the fat and put in a quart of water or, if convenient, a quart of hot lard. One or the other is necessary to prevent the fat from burning before the heat is sufficient to bring out the grease. Keep the kettle over a moderate fire until the cracklings are beginning to brown and are light enough to float. Frequent stirring is necessary to prevent burning.

When done remove from the stove and allow to cool slightly, then strain through a muslin cloth into a large jar. Stir occasionally until it begins to harden. If pails or smaller jars are to be filled the lard should be dipped out while it is still liquid. Stirring while it is cooling tends to whiten it and make it smoother. A quart of a pound of saleratus added to each 100 pounds of fat has a like good effect."

This extract will serve as a basis for helpful suggestions from our readers as well as to bring Bulletin 183 to the attention of our young farm folks who have not yet seen it. It is a free booklet of six-by-nine inches, 37 pages and 35 pictures showing both the best tools and the best ways of using them in this big job of turning the cattle, sheep, hogs and poultry of the farm into food for the farm table.

For all vigorous, outdoor workers meat stands at the head of appetizing and nourishing foods. At its best nothing is more valuable; at its worst no food is more harmful. We may not be able to put the effect of our higher standards of living into figures which would show the large per cent of mental, moral and physical giants who have helped America into world leadership. It is quality, good work that counts and demands the best from start to finish.

The troublesome child may be merely the tired child. When introducing new foods in the child's diet give only one food at a time and that in a small quantity, well-cooked and nicely served.

Boiled milk has a tendency to stick to the pan in which it is heated. After removing it from the stove, pour out the milk and replace the cover immediately before the steam has a chance to escape. Let it cool. Then place the pan in cold water to soak.



WIVES OF THE MASTER FARMERS OF 1929
Standing, left to right—Mrs. Charles F. Preston, Mrs. Henry F. Garber, Mrs. Harvey C. Kreitz, Mrs. Norman E. Rishel, Mrs. R. P. McDowell, mother of McDowell brothers, Mrs. John McDowell.
Seated, left to right—Mrs. George M. Anthony, Mrs. C. R. Bauernmaster, Mrs. John D. Reynolds, Mrs. Guy L. Hayman, Mrs. Ray C. Norman and Mrs. Guy A. Leader.

The tiny ones have big interests in Master Farmer homes—one lad of but four specializing with his very own flock of "bantams." Music has its place in these homes and two of this year's group have family orchestras.

These women consider electricity their biggest and best helper. Several use electric ranges for all the farm cooking and baking. One of them even washes her dishes electrically! How we would all relish that!

Riding a "hobby" occupies a bit of their time, too. There are several prize flower gardens in the group, two are energetic club leaders, three lean toward music—all help their husbands with the feathered friends and dairies, and one decorates china.

It was good to hear the husbands give so much credit to the wife for the great success and honor each had attained. Recreation has its place in each home. These families go on motor trips, fishing excursions, hunting expeditions, and there are some "ole swimmin' holes" right on their farms. They play with their children. Perhaps that's what has made them Master Farmers.

To protect the top of blankets and quilts from being soiled, bind the edge with a piece of cheesecloth or other inexpensive material about sixteen inches wide which matches the blanket in color. When this is soiled it is easily removed and laundered.

The percolator which has become stained inside with coffee may be cleaned by filling the pot nearly full of boiling water and adding a teaspoon of soda. Let it boil a few minutes and then wash it out with soap and water.

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Let Your Heart Be Young

At no time of the year can we have so pretty a party as on February 14. Red hearts awaken even the dullest, and merriment prevails, so let's entertain. Invitations may be written on gay red hearts using white ink, or white note cards may be decorated with little red heart stickers, and red ink adds an interesting touch. Whether young or old or both are to be invited, use plenty of red crepe paper streamers, and many, many red hearts—all sizes—in decorating. Give the house a festive air. In fact the family alone likes that much, even if there is no party.

When We Eat

In the refreshments, too, let hearts abound. Heart shaped sandwiches, heart cookies, heart croquettes, heart-shaped paper dishes for vegetables or candies, heart salad mold—all these are decorative and jolly as well as delicious. The sandwich and cookie cutters can be made at home using baking-powder cans. They are not hard to bend into shape, and cut nicely. The same kind of cans with bottoms removed, can be bent into shape the entire length and will fashion a gellatine or jello mold for salad or dessert.

What Shall We Play?

"Partners" are especially interesting on Valentines Day, so pair them off giving half the guests hearts, and half arrows and matching up by number, name, or try love songs. In this game, half a song title is written on a heart and the remainder on an arrow. For instance, "Drink to me" would be on the heart, "only with thine eyes" on the arrow. When the two have discovered each other and all guests are mated, they sing or dramatize the song named on their cards. This gives the party a lively start.

"Is Love Blind" is another good game. Men or boys are separated from the girls and one at a time is blindfolded. A girl steps up to him and in her sweetest natural voice says: "Hello, friend James" (or whatever his name may be), and at once he replies "Greetings, Esther" (or her correct name). If he misses, Cupid gets his name and he has a forfeit to pay after all the men have tried their luck. Be sure to use your wit—guess the forfeits and a clever costume adds to the fun. Here crepe paper is not only suggestive but very striking. If you want a booklet of ideas, write us for that help.

"Cupid Shoots" is another good game. Here each is given a small bow and arrow. On the wall or in a doorway is put up a large white cardboard heart with a small red heart in the center. Each one shoots to hit the center, of course. It is wise to number or name each guest's shot or competition may be pretty sharp. A box of candy hearts is a nice prize.

For the children's party, all the above games are good and a "hunt" is much relished. Heart-shaped boxes for each hunter make nice souvenirs. Candies or tiny cookies, or the long-loved peanuts may be hunted. Older folks may seek their love-lorn fortunes. These are small notes tied up and hidden with love poems or song verses typed or written thereon.

Strawberry Mousse

If this cold weather continues, you'll enjoy making a nice mousse for your party or just for the family supper on Valentines Day. If you do not have an electric refrigerator, try the snow bank in your back yard. Now is the time to have these frozen dainties, so good for everybody.

Dral none quart of canned strawberries, and rub through a coarse sieve or potato ricer. Use enough of the canned syrup with crushed berries to have two cups. By using evaporated milk, a finer textured mousse

is made. To whip this milk, place the unopened can of evaporated milk in a pan of cold water to just cover it. Heat to boiling point, then chill thoroughly. Chill also your whipping bowl, and when ready to use whip about half at a time. The colder, the better, and your quantity will triple itself in the whipping. Then add one tablespoon lemon juice and whip again. Fold the berry mixture into the cream and pour into mold. Freeze and ripen for about four or five hours. If your berries have lost color, a few drops of red color will make the mousse prettier. Frolicsome Fun.

I Wish I Could Can, Too

A READER writes that she read with much interest our recent story about the prize-winning canners and she wishes she could can, too. She wonders if we can supply her with recipes for canning vegetables and fruits.

Yes we can and I have already sent her a packet. I wonder if there is any subject with more printed help for beginners. Not only do the pressure canner manufacturers print recipe books and time tables, but so do the firms who make glass jars and tin cans, jar rings and other canning supplies. Some of these books are free, others cost but a few cents to cover mailing expense. If you wish the addresses of these various firms, we'll be glad to supply them.

Every woman interested in canning should have the U. S. Bulletin No. 1471. This is free. Address your cards to U. S. Department of Agriculture, Washington, D. C. Pennsylvania women have another opportunity to study canning, and under expert guidance.

The State College has a free correspondence course and one of the subjects for women is No. 81—Canning and Preserving. Now women, here is your chance. Other subjects that may be studied are Garment Making, House Furnishing, Principles of Cookery and Table Service, while Home Floriculture, Vegetable Gardening and Poultry Keeping are also of gripping interest.

For more definite discussion of these courses write to Mr. Thomas I. Mairs, Pennsylvania State College, State College, Pa.

Gunning for Big Game

GUNS and all toggery ready, for we must start at an unseemly hour. With eighty miles or more to travel, we are off by ten o'clock of the night before the first day the law allows us to hunt down the beautiful wild deer. With moderate driving we arrive at our destination about 12:30 o'clock. We lie down to get some rest and sleep until dawn before which no deer must be shot.

When the call is given to arise, all is excitement and we hastily eat some breakfast, look at our guns and ammunition and off to the hills and woods we go.

Soon the crack of rifle is heard, sometimes one, sometimes two, three, or a dozen shots ring out and we know a deer has been brought down. Sometimes they can be seen, from camp, running for their life. The writer once saw a pair, from the porch. They were standing on the pinnacle of a high hill; hunters who were ready to lurch jumped and ran with their guns, disregarding the pangs of hunger; but the deer were soon out of reach.

Altogether it is a most exciting sport, for the farmer as well as the city sportsman. One cannot help but pity the victim when you think how wild and free it was a few short hours before.

The excitement overcomes the pity and we start home, even though we are not numbered among the lucky, vowing to return another year for the hunt because it is well worth it.

A. G. Unner.



No. 6692.—Ladies' Morning Frock. Cut in sizes 38, 40, 42, 44, 46, 48, 50 and 52 inches bust measure. A 46-inch size requires 3½ yards of 35-inch material. Make belt and pockets of contrasting material requires ¼ yard 35-inch wide. Width of the dress at the lower edge of the plait fullness extended is 2 1-3 yards.

No. 6695.—Child's Rompers. Cut in sizes: 1, 2 and 3 years. A 2-year size requires 1½ yards of 35-inch material. Made without the bishop sleeve pattern. 1½ yards is required. For collar and cuffs of contrasting material ¼ yard is required cut crosswise.

No. 6696.—Ladies' Slip. Cut in sizes: Small, 34-36; medium, 38-40; large, 42-44; extra large, 46-48 inches bust measure. Medium size requires 2¼ yards of 35-inch material. For shoulder straps of ribbon 1 yard is required. The width at the edge with plait extended is 2½ yards.

No. 6694.—Girls' Dress. Cut in sizes: 2, 4 and 6 years. A 4-year size requires 1½ yards of material 35 inches wide. Collar and sleeve bands of contrasting material ¼ yard 32 inches wide is required cut crosswise. For plaiting on the collar 1½ yards 2 inches wide is required cut crosswise, or 1¼ yards of lace or elastic.

Write your name and address clearly. State number and size of each pattern. Price 15c each, two for 25c. Our Fashion Magazine will help in preparing your wardrobe. Copy only 10c. Embroidery patterns 15c extra. Address Pattern Department, Pennsylvania Farmer, 701 Penn. Ave., Pittsburgh, Pa.

Canned Sausage

FOR many years I have canned sausage and my family likes it even better than the fresh product. Never has any spoiled done in this way.

I do not have a pressure cooker but there are others who may like my method while waiting for modern appliances. This recipe is for sausage in casings. To one gallon of water add one scant cup sugar and one-half cup salt, and bring to boiling point.

In another kettle place the sausage, you wish to can and add enough of this boiling liquid to cover. Boil twenty minutes. Then remove to platter and cut into lengths convenient for your jars. Keep the liquid boiling hot, and after the sausage is packed into jars, fill to overflowing with the liquid. Seal at once with perfect rings and covers.

When they are cold you will find the jars are about half full of liquid, the top half being fat that boiled out of the sausage. The gallon of water and salt will be enough for fifteen to eighteen quarts of sausage.

Mrs. John F. Heckert.

The Question Box

IF our friend who signed herself "Reader" will write to the Clothing Specialists, Extension Service, State College, Pa., she will get the desired help on making felt hats—large or small. Or better yet, if your county has a Home Demonstration Worker get in touch with her.

G. S. S.

The Tale of Nitrate of Soda

(Continued from page 5.)

father's farm in Ontario. Oxen did the plowing, dragging and hogging, writes Mr. Marsh. Horses did the lighter hauling on the farm and on the road. Plows, made by the local blacksmith, consisted of a wooden moldboard with an iron or steel share. They turned the furrow slice on edge but not over. Sowing was done by hand, broadcast. Corn was dropped by hand in shallow furrows made by the plow and then covered with a hoe. There were no carriages. Wagons, sleighs and other equipment were made by a country wagon maker and blacksmith. The entire outfit of implements needed on the farm, excepting the fanning mill, did not cost \$25 in cash.

Visit of Darwin.—On his memorable cruise on the Beagle, Darwin stopped in 1835 at Iquique to visit the nitrate fields. He was much impressed with the barren plateau, free from all vegetation.

Sheriff Makes Test.—John Ryds, sheriff to Frederic Mangles, Guilford Downs, England, in 1839 reported an increase in yield of 69.2 per cent by top-dressing his employer's wheat with nitrate of soda at the rate of 50 pounds per acre. This experiment attracted wide interest in both England and America.

In South Carolina.—In 1839, the Monticello Planters' Society of South Carolina planned a series of experiments in which nitrate of soda was dissolved in liquid manure and drilled with cotton and corn.

Tonic for Clover.—"Clover as high as grain" was grown by an English farmer during 1841, who planted barley and clover on a turnip field which was fertilized with 100 pounds of nitrate of soda.

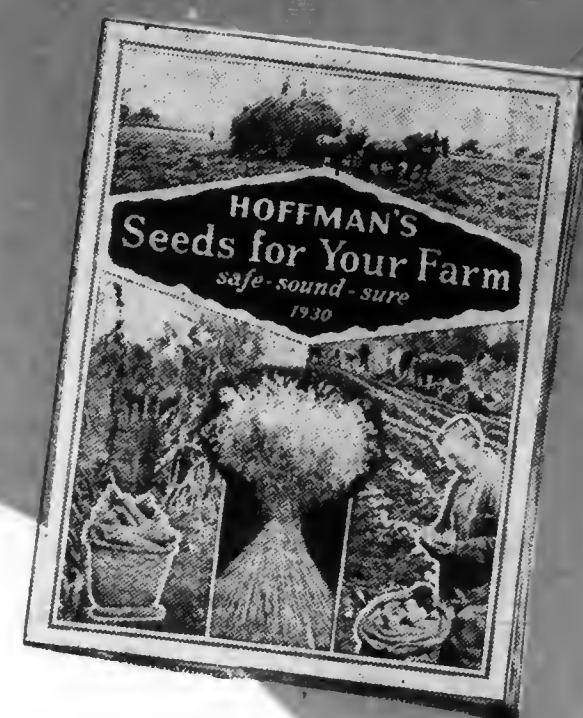
Doubled Wheat Yield.—Before the days of the Department of Agriculture, farm records were kept in the office of the Commissioner of Patents. In his report of 1843 is given an account of another demonstration with nitrate of soda:

"On the 6th day of last May, five alternate ridges of wheat, measuring one acre, two roods and four perches, were sown with five cwt. of nitrate of soda in a field. In a few days the difference between the ridges sown with nitrate and the intervening ridges of the same, could be discerned at a considerable distance from the field; which continued through the summer. The two sorts have been reaped, threshed, measured and each weighed separately and the following is a correct account of the produce: Nitrate, 49 bushels; weight per bushel, 56 lbs.; straw, 2 tons 4 cwt. 3 qrs. and 5 lbs. The other 23 bushels; weight per bushel, 55 lbs.; straw, 1 ton, 5 cwt. 1 qr. and 2 lbs."

New View of Fertilizers.—Results of tests with fertilizers were summarized by the Albany Cultivator in 1844. A singular idea has just been suggested in Scotland," it reported, "in relation to the nutrition of plants. It may be summed up in a few words, that a sufficient quantity of elements of nutrition may be absorbed in the seed of wheat, oats, barley, etc., to ensure a very large product at harvest, without any other manure. Experiments have been made with complete success, and they have been published by the Agricultural Society of Scotland." Nitrate of soda was used in these experiments.

Years later this view was to be upheld by long-time experiments at the Rothamsted Station in England, at the Pennsylvania plots, and at many other stations in this country.

Early Experiment.—One of America's oldest fertilizer experiments was started in 1881 at the Pennsylvania State College. One of the significant results of these long tests is that it has been possible to maintain high crop yields with the use of mineral fertilizers. However, this has been possible only by using a complete fertilizer containing nitrogen (in the form of nitrate of soda) phosphoric acid and potash.



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Chicken Lice and Mites

By W. E. WIECKING

CHICKEN lice are present on almost all poultry and mites make their appearance from time to time to worry the fowls and reduce egg production. These two pests are so prevalent that we have come to look on them as necessary evils. It has been found, however, that they can be eradicated from any farm flock by the application of vigorous control measures.

The time to start the control of these pests is in the spring before the incubation and brooding of young chickens start. At this time there are the least number of fowls to treat, and if the work is done thoroughly there will be no attention necessary to be given to the young chicks when they are hatched.

Chicken lice are parasites in one sense of the word and they very seldom leave their host. They occur on various parts of the body, but each of the common forms of lice found on chickens prefers a particular part of the body for its habitation.

One of the kinds that cause serious damage to poultry is the head louse. This louse is grayish in color and about a tenth of an inch long. It is usually found on the top or back of the head, beneath the bill or back of the ears. It is the principal louse that affects chicks and is the only one against which one must guard his young chickens. Their numbers decrease with the age of the chicken because they thrive best in the soft down on the young chicken.

The Common Mite

The body louse likes to remain on the skin of the chicken instead of on the feathers as some species do. It is usually found in the region of the vent but will spread readily to other parts of the body when the chicken becomes heavily infested. The parts to be treated for this louse are below the vent, along the back, on the legs and under the wings. There are many other forms of lice besides these two common species but they are less prevalent and treatment for the first two will usually control the others as well.

The common chicken mite is an entirely different insect from the chicken louse. The mite is a blood sucker and does almost all of its work at night and is seldom found on the chicken in the day time. It is for this reason that the premises may be heavily infested with this pest without them coming to the notice of the poultryman. They are usually noticed by small patches of black and white specks like salt and pepper spilled on the boards around the roosts or the mites themselves can be seen hiding in the cracks of the boards.

Lice are more easily controlled than the mites although it was until recently easier to eradicate the mites than it was the lice. Dust baths have been used for years to help in the control of these pests but they are worthless against mites and are very little help against lice because many fowls will seldom use the dust bath and so they will reinfest others in the flock.

Pinch Dusting Methods

In recent years a new treatment for lice has been developed by the U. S. Department of Agriculture that if it is applied generally over the country will do more than any other remedy to eradicate the lice among fowls. This treatment consists of dusting the fowls with powdered sodium fluoride in such a way that the lice on all parts of the chicken's body is reached. In this way all of the lice on each is killed at one time and if all chickens are treated at the same time all of

the lice on the premises are killed in one treatment.

Sodium fluoride is a compound of sodium and fluorine which looks a good deal like common salt with which it is very closely related. The commercial product is fairly cheap, costing from thirty to sixty cents a pound which should be sufficient to treat a hundred fowls by the method given below. This form of this substance is a fine powder and is easily dusted on the fowls. It may be better known to some of us in another form for it has been the principal ingredient in cock-roach powders for a number of years.

Sodium fluoride is best applied to the fowls by the pinch dusting method. A small pinch of the substance is rubbed into the feathers about the head and neck, two on the back, one on the breast, one below the vent, one on the tail, one pinch on either thigh and one on the under side of each wing. If small chicks are to be treated they must be over a week old and two small pinches are all that should be used, one on the head, neck and throat, the other on the back and vent. The old hen should receive only three pinches at this time on the head, back and below the vent.

Destroy Old Roosts

Although they are more difficult to find about the premises mites are perhaps more easily controlled than lice. As they are seldom found on the fowls in the day time it is necessary to search for their hiding places and destroy them there with contact spray materials. The first essential in combating mites is to get rid of as many of their hiding places as possible. For this reason it will be necessary to remove and destroy all old roosts, boards and boxes that may be found in the hen-houses.

The litter and straw on the floors must all be removed and burned and then when the house is as clean as such methods are possible to make it will be necessary to paint or spray all the inside of the house with some good contact spray material. For this purpose it has been found that lime-sulphur spray is not very effective against chicken mites.

Crude oil thinned down with about one-fourth of its volume of kerosene is one of the cheapest and best sprays to use for killing mites. Crude oil may stain the clothing and hens and if this is objectionable it will be necessary to make use of a more expensive material such as commercial carbolineum or creosote oil.

Both of these are derived from coal tar and are considerably dearer than the crude petroleum, however, each is very lasting and one good application will usually rid the premises of these pests.

The control measures for these two common pests are also easy to apply. Most reinfestations are caused by the introduction of new fowls to the flock or they may be introduced by strays from neighboring flocks coming in contact with a clean bunch. If new fowls are to be introduced to the flock it is the better part of wisdom to keep them isolated from the main body of fowls until it is certain that they do not carry either lice or mites around with them.

Other ways in which the premises may become infested is through the use of second-hand chicken crates, or they may be brought along on clothing, wagons or may be left among the flock by birds, most commonly by the English sparrows. The only way to keep the flock from infestation from these sources is to guard against the members of the flock coming in contact with this class of objects as much as possible.

The Ad Said "ENOUGH VITAMIN D TO RAISE PERFECT CHICKS IN A DARK ROOM" SO-



FACTS

about the private test made by L. H. Kelly, Pratt dealer, Janesville, Wis. 300 day-old chicks confined in a light-proof basement. Fed Pratt's Baby Chick Food, processed with Vitamin D. At 4 weeks, chicks averaged 12½ oz. No runts. No leg weakness. At 6 weeks, chicks averaged 15½ oz. (normal weight for 8 weeks is 12 oz.). "Most uniform I ever saw. Large bone, strong bodies, no sign of leg weakness", Mr. Kelly says.

THIS DEALER TRIED IT HIMSELF—

Last season Pratt's announced a special processing of Buttermilk Baby Chick Food that so enriched this food with Sun-Vitamin D that it raised perfect chicks in a dark room.

But one Wisconsin dealer was "from Missouri." So he tried the experiment himself in his own basement. The results so astonished him that he became a crusader for Pratt's. All his customers

were urged to nourish new chicks with this food that supplied in abundance the ONE element that prevents leg-weakness, low vitality and slow growth. As a consequence, losses of this kind were cut to a fraction for his customers.

And Raised Chicks 25% Overweight!

Of course, the dark room test is an extreme one. But not so far at that from those dark damp days of February and March when chicks nowadays are hatched and started.

Don't expect chicks to get the nourishment from other food, however good, unless they have enough Vitamin D. Rich as Pratt's is in all the food elements that build



PRATTS BUTTERMILK BABY CHICK FOOD

GROWING MASH • America's Quality Feed Line • LAYING MASH

To be... or not to be?



How many of those baby chicks of yours will be alive, healthy, and laying eggs six months from the day they were hatched?

Start them on Gold Medal Chick Starter and they will live and grow into healthy, profitable layers.

The carefully balanced ingredients in Gold Medal Chick Starter build strength and vigor into baby chicks, and start them on the way to rapid, thrifty growth. By the end of the sixth week you can begin changing over to Gold Medal Growing Mash.

These Gold Medal "Farm-tested" feeds are produced in the same mills and to the same high standard of quality as the famous Gold Medal "Kitchen-tested" flour. Guaranteed to satisfy or your money back.

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Why not now?

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Please send me free copy of "Farm Poultry Profits".

Name _____ Address _____
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of the incubator or the care of the breeding stock.

Since the eggs are apparently fertile and the chicks develop through to the 18th day and then fail to hatch, it would seem that little adjustments in the management of your machine would overcome the trouble. The best suggestion which I can offer is for you to write to the concern from which you purchased your machine and secure their advice on the subject.

Some machines require a great amount of humidity for best results. A regular temperature is most important. Never should the thermometer record higher than that recommended by the incubator manufacturer. Most incubator companies have a corps of specialists to devote their time to research problems in incubation and certainly they should be able to assist you in locating your trouble.

H. C. K.

Turkey Has Roup

I have a turkey hen which is puffed a little under one eye. I caught her today and one nostril was closed with dirt, had formed a scab. I picked it off and put a little salve on it, also rubbed under her eye with same. If that is the beginning of roup, do you know of any remedy I could use to prevent it?

I see in the December 21 Pennsylvania Farmer about breeding turkeys. Why should old turkey hens be mated to young toms? I lose so many baby turkeys the first and second week. I would like to know the cause.

Winnie Husfelt.

A SWELLING under the eye is often an indication of roup. I don't know of anything better you could have given the bird than the remedy you applied. It would be a good idea to repeat the treatment from time to time, until she gets better. Sometimes these swellings come to a head and can be lanced and squeezed out, but I wouldn't be in any hurry to cut unless the swelling plainly is ready for it.

It is a general rule in breeding poultry to mate young males with old females and vice versa, but like most rules it can be and is broken. Your young turkeys may suffer from lice or be soaked from the wet grass. Have you ever tried raising them in brooders just like baby chicks? Many people are very successful with them that way.

R. L. S.

The Tobacco Treatment

Is there merit in the powdered tobacco treatment for worms in laying hens? If so, let me know the exact amount to be added to 740 pounds of laying mash, also I would like to use same as a mild continuous treatment rather than severe or spasmodic.

Russell L. Shelby.

TOBACCO powder is commonly used in the laying mash as a remedy for roundworms, at the rate of one and one-half or two per cent. For 740 pounds of mash you should mix in thoroughly from 10 to 15 pounds.

If you find your flock is wormy, I would suggest feeding this tobacco mash for a week or so, and then discontinuing it, feeding it again at some future period if you think there is need for it. I have often used this treatment, but would prefer not to give the tobacco in the mash continuously.

R. L. S.

A Hard-Boiled Egg

Oftentimes when I boil an egg ten minutes the white turns dark and the yolk sort of green on the outside. Will you kindly explain what causes this?

William Gieb.

IT has been our observation that when eggs have been boiled for ten minutes or more it is not uncommon for the whites to turn dark and the yolks a greenish color on the outside. Eggs boiled in this manner probably lose most of the vitamin potency. The suggestion has been made that perhaps eggs with olive-colored yolks when boiled for a long period of time present an appearance similar to that described by you. The use of cottonseed meal in the ration and perhaps other ingredients of a similar nature might be responsible for this condition.

H. C. K.

KERR'S CHICKS

Keep next fall's laying in mind when you buy baby chicks

KERR CHICKS have strength and livability, but they have more, much more. They have an assured laying inheritance.

Keep this in mind. It is a point for first consideration. The eggs you get from pullets next fall will depend on the judgment you use in buying baby chicks now.

Our White Leghorns are rich with the blood of hens with records up to 294 eggs. Our Barred Rocks carry the blood of layers with records up to 277 eggs. Our R. I. Reds with records up to 300 eggs.

Over 40,000 birds in our laying flocks tested for B. W. Diarrhea. Flocks rigidly culled for size, type, vigor and production.

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R. O. F. Hollywood, Tanned, Barred Matings. Hatch weekly pure white eggs up to 24 sources per dozen.

Beautiful Color Plate Leghorn Catalogs Free

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Dept. F, Greencastle, Pa.

CHICKS Pay Struck Quality High Producers

For 21 years we have been developing flocks of highest quality. Our chicks make good as producers of more and more. Thousands of old customers say Pay Struck Chicks are the best.

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Box 136, Tiro, Ohio

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chicks delivered weekly throughout the year. Get our special offer for Feb. and March. 10% delivery guaranteed. Order early.

HERBSTER'S POULTRY FARM, McClure, Pa.

Poultry Problems

Stunted Chickens

I am writing to ask what ails my chickens. They did not grow right during the summer and are small in size. Leghorns some of them weigh only one and one-half pounds at six weeks. They seem healthy and combs are red, but on examination I find the keel bones in places are narrow and small in size and of a thick, meaty appearance.

W. C. G.

OUR chickens have been stunted by some intestinal trouble, probably coccidiosis, which irritated the intestines to such an extent that they failed to assimilate food properly, checking growth. Unfortunately nothing can be done now to help these, and my advice is to dispose of them but the best.

Next season the thing to do is to keep your chickens on clean ground. Birds of any age have not been several years, and it would be better to rear in partial or total confinement. I suggest that you write the Poultry Department, Pennsylvania State College, State College, for their free circular on raising chickens in confinement.

R. L. S.

Winter Molt

Last spring I took eggs to our local hatchery and had them hatched. Got chicks May 6th. They are Leghorns. I lost only 14 out of the 324. Most of them died before they were two weeks old. They grew and laid better than any I ever raised. In the middle of November they were going around 40 per cent. The 30th November we had a severe cold spell and it cut production to about 30 per cent, although no combs were frozen. Then some are getting pale combs and wattles which are shrinking up. I killed and examined them, thought they might have worms, but I couldn't find any.

I. M. Behm.

It appears to me that your pullets are going into a winter molt, which is usually caused by the shock of cold spell. I don't know of anything in particular which you can do to bring them out of it, except to give them ordinary good care and let nature take its course. If you have the birds under lights, they will get into production all the quicker. Any other developments come up, let me a line.

R. L. S.

Carrots for Feed

Writing for information on how to feed carrots to chickens. I have about 25 bushels and cannot get rid of them. Do you think raw carrots will do any good?

G. J. S.

CARROTS are exceptionally good for chickens, although in some cases they have their own notions of eating them. They can be fed the rate of three to five pounds per 100 birds per day, and the birds will relish them more if they are fed before feeding.

R. L. S.

Roup Symptoms

A peculiar thing has got among my hens. Their eyes first get watery and look like soapuds, then they shut and look as if they were blind. The birds sneeze and have raw blisters in throat and won't eat.

E. M. K.

ACCORDING to the symptoms you outline your birds have roup. It is very little that can be done to control this disease, which must run its natural course, except to provide a dry and clean house, sheltered drafts and give good ordinary feed. Birds badly affected may as well be killed, as they seldom recover. Others may respond to treatment.

R. L. S.

Incubator Trouble

I have an incubator with which I have some trouble. The chicks are all dead by the 15th day and up to the 18th day. Then many die in the shell.

R. J. Arnold.

IF eggs don't hatch is a problem which requires careful attention. Of course, it is a simple matter to blame the incubator. Very often trouble lies with the management.

IN ONE BAG

A Chick Starter A Chick Grower



FOR a good start, chicks need a clean, fresh feed that combines all the various proteins, minerals, vitamins, and energy yielding feeds essential for quick growth. To carry them through to healthy, vigorous maturity, chicks need these SAME FEEDS in increasing amounts.

Amco Starting and Growing Mash gives you all these feeds in one bag. Feed it alone as an all-mash for the first eight weeks. Then, after the broilers are gone, keep right on feeding this mash with an increasing amount of

Amco Scratch Grains to provide for the growing energy requirements.

The Open Formula tags on all bags give feeding directions and show that this mash contains 100 lbs. per ton of Dried Buttermilk, the most sanitary and convenient form of this important chick builder.

It may be purchased with or without Cod Liver Oil mixed in.

For full information see your nearest Amco Agent or write to the address below.

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Navy Brand Concentrated Buttermilk
From Tuberculin Tested Cows

24 per cent milk solids, 64 per cent lactated, thick as custard when so fed. Contains no preservatives. Increases egg production and promotes fertility and hatchability. Good for chicks, broilers and laying hens. Sold direct from the factory in barrels of about 45 lbs. Write for prices.

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| Barred Rocks | 25 | 50 | 100 |
| S. C. R. I. Reds | \$4.00 | \$7.50 | \$14.00 |
| S. C. W. Leghorns | 4.00 | 7.50 | 14.00 |
| Heavy Mixed | 3.50 | 6.50 | 12.00 |

500 Lays 1/2 less, 1000 Lays 1c less.

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| Wyck & Tanager Str. | 50 | 100 | 500 | 1,000 |
| S. C. W. Leghorns | \$6.50 | \$12.00 | \$27.50 | \$110.00 |
| S. C. Brown Leghorns | 6.50 | 12.00 | 27.50 | 110.00 |
| S. C. Rocks and Reds | 7.50 | 14.00 | 27.50 | 130.00 |
| Heavy Wyandottes | 8.50 | 16.00 | 27.50 | 150.00 |
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| Assorted Chicks | 5.00 | 9.00 | 22.50 | 85.00 |

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We offer chicks for season 1930 of the following breeds: Barred White Leghorns, Barred and White Rocks, S. C. and R. I. Reds, Black Minorcas, White, Silver and Chatham Wyandottes, Buff Orpingtons, Black Game, Sussex and Hamburgs. Prices Reasonable. Catalog Free.

THE LANTZ HATCHERY
Box 3, Tiffin, Ohio

BABY CHICKS

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| CASH or C. O. D. | 50 | 100 | 500 | 1,000 |
| S. C. W. Leghorns | \$6.25 | \$12.00 | \$27.50 | \$110.00 |
| Red & Wn. Rocks | 7.25 | 14.00 | 27.50 | 130.00 |
| S. C. R. I. Reds | 7.25 | 14.00 | 27.50 | 130.00 |
| Heavy Mixed | 6.25 | 12.00 | 27.50 | 110.00 |
| Light Mixed | 5.00 | 9.00 | 22.50 | 85.00 |

Write for live delivery guaranteed. Prompt shipment.

Pinecrest Poultry Farm & Hatchery
Herbert Miller, Prop., Box 6, Richfield, Pa.

The Only People We Can't Please Are Those Who Won't Buy

A. C. JONES' Barred Rocks and S. C. W. Leghorn BABY CHICKS
ALL FLOCKS STATE SUPERVISED.
A. C. JONES' Poultry Farm and Hatchery
Dover, Delaware.

Please Mention Pennsylvania Farmer When Writing to Advertisers.

BLACK LEGHORN. DAY OLD CHICKS. The kind that lay. Circulate free. A. E. HAMPTON, Box F, Pittstown, N. J.

How Mrs. Potts Saved 97% of all her chicks

Now Mrs. Potts (full name and address on request) raises 97% of her chicks in the light, dry, tank-construction, round, brooder house made by Young's Poultry Houses. She can easily keep uniform heat in all weather. Her house is not tight and disconcerting to young chicks. It is so perfect that something is missing in her house. She believes this is the best brooder house on the market. It is one of the strongest and also one of the cheapest. Would you be interested in the HARPER ROUND WOOD BROODER HOUSE which Mrs. Potts is finding so profitable? Write at once for small "early bird" discount, descriptive folder and prices. Save chicks and money!

HARPER SILO CO., INC.
Department BPI
Cobleskill, N.Y.

YOUNG'S Portable Poultry Houses

8x8 ft. Amherst \$45

Something New in Brooder Houses

A combination Brooder House, Shelter and Laying House. Warm for brooding; can be opened for summer shelter and closed again in fall. Fully described in our 1939 Catalogue of Poultry Houses, Pigeon Houses and Rabbit Hutches. Write for your copy—free.

E. C. YOUNG CO., 55 Depot Street, Randolph, Mass.

WENE Blood-CHICKS

State-Supervised S. C. W. H. Leghorns

Priced Little Higher Than Untested Stock

A cent or two more each is all you pay to secure chicks from State-Supervised, blood-tested flocks of Specialty-Bred S. C. White Leghorns. Selected to produce large chalk white eggs. Special Matrons from ten brooders, weighing 10 lbs. or more, mated to selected cockerels. Super Matrons from superior Hen Brooders, mated to State B. O. P. cockerels from dams with records of from 200 to 300 eggs. Immediate delivery.

WYAN-ROCK and "BRAM-ROCK" CROSS-BREDS FOR MEAT PRODUCTION

These cross-bred chicks from our own matrons, produce the finest broilers and roasters we have ever seen. We can also supply straight breeds. Reds and Wyandottes for dual purpose flocks. Immediate delivery. Write for Free Illustrated Folder and Prices.

WENE CHICK FARMS, Dept. B, Vineland, N.J.

Gyphers Incubators

Both all burning and electric models. Strong healthy chicks from every hatchable egg. Write for new, reduced prices and free booklet on care of chicks. Brooders, downy brooders and free booklets on care of chicks.

GYPHERS INCUBATOR CO.
90-104 Pearl St., Buffalo, N.Y.

JUMBO BABY CHICKS

FOR SIZE AND QUALITY

Write for Prices

FRECH'S LEGHORN FARM
Route 5 DAYTON, OHIO

SUNNYSIDE CHICKS

Order direct from this ad and obtain the better chicks from Heavy Laying Strains.

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| Locks & Hens | | \$1.00 per 100 |
| White & Brown Leghorns | | \$1.20 per 100 |
| Heavy Mixed | | \$1.15 per 100 |
| Light Mixed | | \$1.00 per 100 |

Prepaid, the arrival and satisfaction guaranteed.

Member Inter-Baby Chick Assn.

SUNNYSIDE HATCHERY, Box 1, Liverpool, Pa.

CHICKS Healthy, Vigorous, Robust, \$1.00 per 100 will look order. 20 years experience. Weekly shipments. S. C. White Leghorns, 12c each; \$10.00 per 1,000. Turned, Brown and Young strains. Every S. C. Brown Leghorn, 12c; Barred Rocks, 12c; S. C. Red, 12c; S. C. Black Minorca, 12c each; Heavy Mixed, 12c; Light Mixed, 12c each; \$8.00 per 1,000 for P.O. Stock & April. Prepaid. Delivery free. Safe delivery guaranteed. Also started chicks. Write for THE PENNA. HATCHERY.

Box 34, LIVERPOOL, PA.

BABY CHICKS

| | | | | | |
|----------------------|--------|--------|---------|---------|----------|
| S. C. White Leghorns | \$1.00 | \$5.50 | \$12.00 | \$25.00 | \$110.00 |
| Barred Rocks | 4.25 | 2.50 | 14.00 | 27.50 | 130.00 |
| S. C. Red | 4.25 | 2.50 | 14.00 | 27.50 | 130.00 |
| Buff Orpington | 4.25 | 2.50 | 14.00 | 27.50 | 130.00 |
| White Rocks | 4.25 | 2.50 | 14.00 | 27.50 | 130.00 |
| Heavy Mixed | 4.00 | 2.50 | 12.00 | 25.00 | 110.00 |

All chicks from free range farm flocks. 100% live delivery guaranteed. Order now, direct from advertisement.

MONROE HATCHERY, Box F, RICHFIELD, PA.

LOOK! Baby Turkeys & Goslings

Postpaid, Live Arrival Guaranteed. Mammoth Bronze, Bourbon Red, White Holland and Narragansett baby turkeys. Toulouse and White Fawn Goslings, all from blood and best strains. Catalog free. Stamp not.

NABOB POULTRY FARM, Ave. P, Gambier, Ohio

Garden and Truck Crops

By GILBERT S. WATTS

"POOR seed is worse than dead seed."

That quotation is from a talk given before the Pennsylvania Vegetable Growers' Association by Mr. C. H. Nissley of New Jersey. And how much worse poor seed is than dead seed! Time is lost. Fertilizer is wasted. The vacant spaces are idle land. Weak plants start backwardly. But half of a crop is secured in the end. In other words opportunity to make a profit is wiped out at the beginning.

Mr. Nissley further emphasized the supreme importance of eliminating chance and guess work from our gardening operations if we are to continue to compete successfully. He called attention to our advantages in respect to roads, location and markets. Yet the fact remains that larger production per acre and better grading and packing will be required to keep up with the pace that has been set.

Sterilizing for Damping Off

In a discussion of plant growing Mr. Nissley urged that soil known to be infested with "damping off" be sterilized either by steam or formaldehyde. In either case great care must be exercised not to introduce the fungus into the newly sterilized beds by walking over the soil or by using tools that have not been treated.

In the formaldehyde method four pints of 40 per cent formaldehyde are mixed with 50 gallons of water. The solution is then sprinkled evenly over the soil to be treated, applying at the rate of one gallon per square foot. Cover with burlap or canvas for about 48 hours. Then air ten days and plant.

Fertilizing Vegetable Crops

In a discussion of this subject at Harrisburg, Mr. H. N. Dudley, a celery and spinach specialist, who is located near Philadelphia, opened by stating that he applies nearly all the fertilizer broadcast and harrows in before planting. For the leafy crops that he grows Mr. Dudley employs a mixture containing approximately equal percentages of nitrogen, phosphorus and potash.

Prof. J. G. Stout of State College reviewed the development of concentrated fertilizers. Apparently they will continue to prove satisfactory for vegetable growing. He urged that in figuring fertilizer costs and applications we make sure that equivalent amounts of plant food are being compared.

Prof. J. M. Huffington, extension specialist in vegetable gardening, presented the results of a study of experiment station findings on fertilization of vegetables. A boiled-down edition of this paper will be mailed to members of the Pennsylvania Vegetable Growers' Association by Walter B. Nissley, secretary, Horticultural Bldg., State College, Pa. Dues are one dollar a year. In passing let us note:

Frequent light applications of manure have been more profitable than infrequent heavy applications.

The efficiency of manure has been greater on limed soils.

Phosphorous (superphosphate) also is required to secure greater efficiency with manure.

In Rhode Island 16 tons of manure plus fertilizer gave larger and more economical yields than 32 tons of manure alone.

In several experiments yields have been maintained at satisfactory levels by intelligent and intensive use of green manures, commercial fertilizers and lime.

On asparagus, where the tops have been disked into the soil each year, fertilizer has given as good yields as manure. Apparently it is profitable

to apply some readily available nitrogen to asparagus early in the spring.

The MARKET PLACE

By W. R. WHITACRE

THE Farm Show is drawing to its close as I write this, and cars loaded with farmers and other visitors are leaving the city. It has been a great show and despite the snow and ice-covered streets, the exhibit buildings have been crowded to capacity with throngs of interested folks. Meetings have been well attended and there has seemed to be more enthusiasm than formerly.

It is impossible to see and hear all that one desires, as the program has been full of interesting things. One of the points that has been stressed in almost every meeting at which I attended has been advertising. The potato growers, the vegetable growers and farmers' market operators are vitally interested, and I believe a definite program will be worked out.

Quality Counts

In the vegetable growers' meeting C. M. Smith of Lewistown told of the advantages he had received by putting out first-class produce and letting people know that it was his. He has adopted a special package for his crops that tells the buyer where it was grown. He stated that attractive labels often brought him 10 cents to 25 cents extra on each package. Herman Gosser, a commission merchant of Philadelphia, told the growers that colored tags bearing the grower's name attached to sacks containing sweet corn made a definite increase in the demand for that grower's corn and he was able to sell it at premium prices.

Henry Eby, county agent from Allegheny county, showed labels used by the growers in his section which have enabled them to get better prices for their produce. He pointed out that it is the woman who buys the fruits and vegetables and the sales appeal must be directed to her. Growers may think it is all hokum and useless expense and work, but they have found that the consumer is willing to pay a little extra to get a first-class attractive package.

More Sweet Corn Sold

Gilbert Watts showed us small slips which he had printed and used last summer, which materially increased his sales of sweet corn. These slips advertised his corn and informed the consumer that freshly gathered corn had a far better flavor than that which has been pulled for several days.

The chain stores were discussed from numerous angles. Their effects on the farmer appear to be both favorable and unfavorable. They are out to make money, but the growers who have sold to them report satisfactory dealings. The chief difficulty is to reach the man who does the buying, since the individual store manager is not usually empowered to buy. This is the reason that Idaho and Maine potatoes are sold in the heart of the Pennsylvania potato growing sections.

A rather new trend of thought was noticed at both vegetable growers' and potato growers' meetings. It was that nearness to market is actually proving a disadvantage rather than an advantage to many Pennsylvania growers. The reasons given were that nearness to market results in poor grading and packing and general lack of uniformity.



Truslow Chicks

—the Product of Our 48 Years of Experience in BREEDING

This year our flocks were mated with the cockerels we could produce, together with birds procured direct from such famous breeders as Newton Cosh, Harry Wolfeffer and Bob Wood Farms, Truslow Barred Rocks, Leghorns, R. I. Reds, White Rocks and Wyandottes, so popular that you must order early to avoid disappointment. Write for our Free Book and state your requirements so we can give special prices.

We have just discovered a method which actively controls coccidiosis. This is the result of hundreds of experiments. No milk—no drug. Bulletin describing this wonderful discovery is being printed. Send 10c for your copy.

Truslow Poultry Farm, Inc.
Box 2-F, Chestertown, Maryland

GREATER PROFITS in OLD CHICKS

Many customers value 95% and better. TODAY for circular giving full details. Thousands of satisfied customers. 100% live delivery guaranteed. Discount on orders placed now for every year wanted. **SHIPPED C. O. D.** Barred Rocks, White Rocks and S. C. White Leghorns hatched from pure-bred, free-range, blood-red stock. White Rocks trained and pedigreed. Records up to 270 eggs.

VALLEY FARMS, Dept. 4, Centre Hall, Pa.

BABY CHICKS

Wh. Bl. St. and Br. Leghorns \$2.75 \$3.50 \$4.00
Rocks, Reds and Wyandottes..... 3.50 4.00 4.50
Heavy Mixed..... 3.25 3.50 4.00
Light Mixed..... 2.75 3.00 3.50
Twenty-four page catalogue free. 50 Year old. 100% live delivery. Postage paid. 100% live delivery.

JOHNSON'S HATCHERY, Ickesburg, Pa.

Mine of Information—FREE

The Largest Specialty White Leghorn Farm in the United States distributes a free, illustrated Year Book free to poultry keepers. It contains the 31 best breeds. To those further West, price postpaid \$1.00. This book gives housing, pedigring, breeding, feeding plans based on 35 years' experience. Why? The Farm gives you the guaranteed type, better than any other. Write for your copy today.

LORD FARMS, 30 Forest St., Methuen, Mass.

BETTER BABY CHICKS

Barred Rock, White Rock \$2.50 \$3.00 \$3.50
Wh. Wyandotte & Red \$3.50 \$4.00 \$4.50
S. C. W. & Bl. Leghorns 3.25 3.50 4.00
Br. Leghorns & Ancona 3.00 3.25 3.50
Heavy Mixed Broilers..... 3.00 3.25 3.50
Light Mixed Broilers..... 2.50 2.75 3.00
Wh. Pekin Ducklings..... 5.25 6.00 6.50
Postage paid and full delivery contract. Write for Greater Profit. **Ulan Poultry Farm & Hatchery, Box F, Port Townsend, Wash.**

PENNA. GIANT BRONZE TURKEY STATE WINNERS

Ebbsen's Famous strain and prizes, with 19 birds entered and prizes on some farms. It is an outstanding breeding stock. Write for outstanding breeding stock. **EBBSSEN TURKEY FARM, Box F, Rome, Pa.**

TANCRED STRAIN WHITE LEGHORNS

Book your order now for May and April chicks. \$12.00 per 100. \$27.50, 500. 100% prepaid safe delivery guaranteed. **I. N. NACE POULTRY FARM, Box No. 3, Richfield, Pa.**

Kline's Barred Rock Chicks

Healthy stock. Production record. Free catalog. Write for details. Strong chicks. Some better. 100 or 125 lots. Low prices. Write now. **S. W. KLINE, Box 20, Middletown, Pa.**

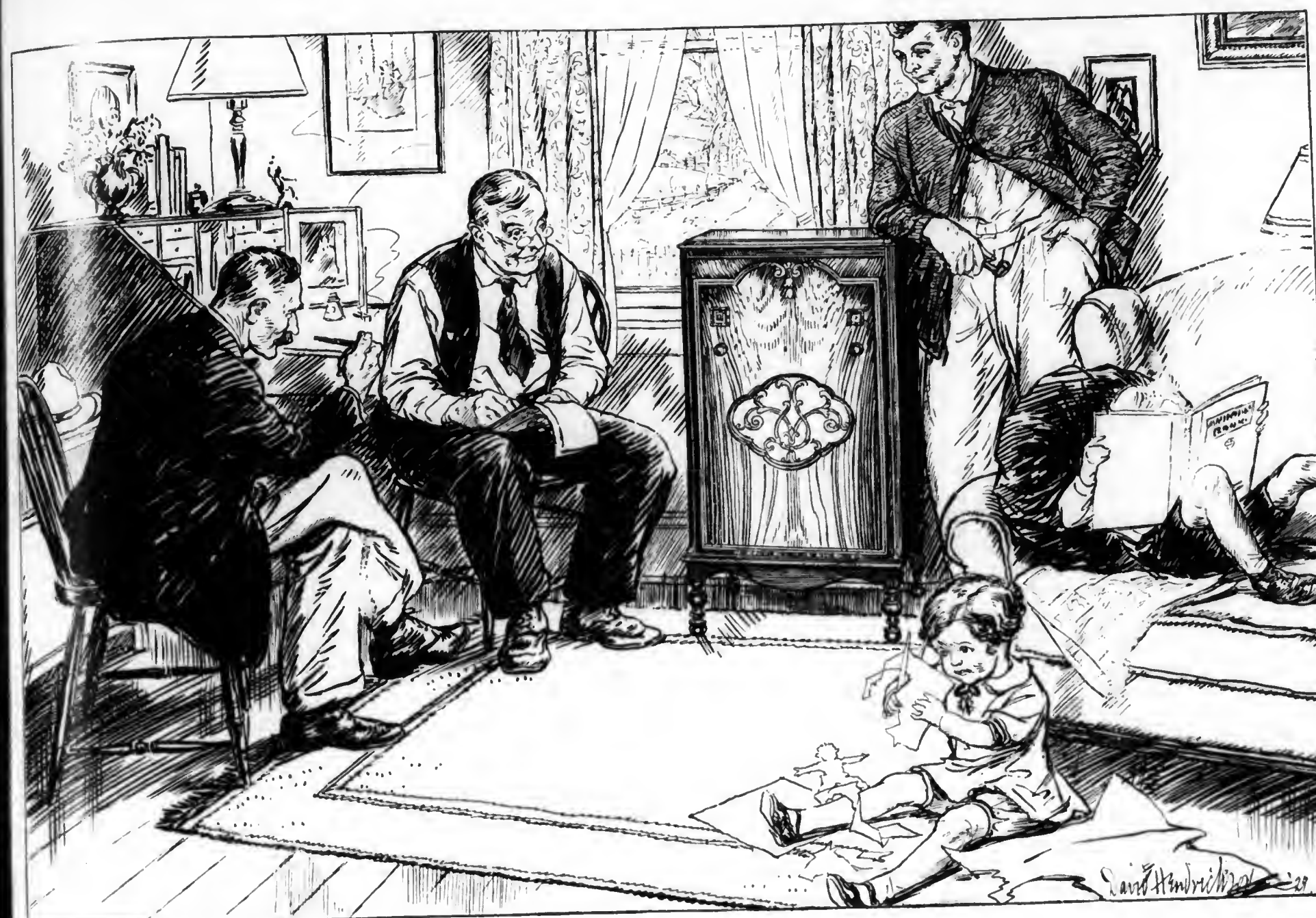
810 MUSKY CHICKS, that live and grow to 8 lbs. Shipped C.O.D. from bred-to-lay, tested, blood-red type. Big egg Leghorns. Ancona, Bantam, Wyandottes, Orpingtons, Giants, Cuckoo, Fries. **SEIDELTON FARMS.**

Purebred BARRED ROCKS \$12.00 per 100. Prompt Service. **CHAS. F. EWING, R. 1, Methuen, Mass.**

DUCKLINGS Large type Pekins. \$2.00 each. \$20.00 for 100. \$50.00 for 250. \$100.00 for 500. Live delivery. **GOLDEN RULE HATCHERY, Box D, Bucyrus, Ohio.**

GUARANTEED CHICKS

Pure Bantam & Bantam-Wyandotte Leghorns. Also Red & White Rocks and W. Wyandottes. **RIDGEWAY POULTRY FARM, Harrisburg, Pa.**



You can make your farming more profitable with a RADIOLA

WITH a Radiola in your home you get crop news, weather forecasts, market bulletins and price reports the day they are issued by the Government and other agencies. The most important items in tomorrow's newspapers reach you today when you have a Radiola to give you instantaneous connection with the great broadcasting stations.

This service is an invaluable one to the modern business farmer. Many owners of Radiolas say they could not afford to be without it. And, in addition, a Radiola is a source of home entertainment without an

equal. It brings you with amazing realism programs that cost millions of dollars a year to put on the air. There can never be a dull evening at home when you have a Radiola to draw music out of the skies.

RCA—the world's greatest radio manufacturing organization—has designed high-power Screen-Grid Radiolas of the latest type that are ideal to use in homes not having central station electric service.

The RCA dealer near you will gladly show you these fine models of the famous Radiola. No finer instruments are built at comparable prices.



Look for and insist upon the famous RCA trademark

RCA RADIOLA 22—Cabinet model. Screen-Grid receiver for battery operation. With enclosed RCA Loudspeaker. \$135 (less Radiotrons)

RCA RADIOLA 21—High-powered Screen-Grid receiver for battery operation. \$69.50 (less Radiotrons)

RCA LOUDSPEAKER 103—The leading magnetic-type radio reproducer. Designed to harmonize with home furnishings. \$18

RCA RADIOLA 45—Console type. All-electric (A.C.). A magnificent model wrought in a striking, beautiful modern design. \$54 (less Radiotrons)

RADIOLA DIVISION RADIO-VICTOR CORPORATION OF AMERICA



Many people envy the man in a "Used" BUICK
... and no one ever thinks of it as "used"!



The familiar saying, "Happiness is a state of mind," applies to *motoring happiness*, too. And real motoring happiness will be yours if you join with the tens of thousands of men and women who purchase used Buicks from authorized Buick dealers.

Good, sound, logical reasoning tells these buyers they will derive more pleasure from a reconditioned Buick than from a new car of similar price. And the more they drive their Buicks—and experience the thrill of Buick performance—the more convinced they become of Buick's greater value.

Not only does Buick hold greater prestige, comfort and luxury . . . not only does it combine infinitely more power, speed and

all-round performance . . . but it provides that staunch roadability which only a car of Buick size can give, as well as that unvarying dependability for which Buick is world-famous.

Moreover, a Buick is always a Buick—whether one, two, or five years old—because Buick craftsmen build scores of thousands of miles into every Buick.

Decide now to own the Buick you've long wanted. *And make satisfaction doubly sure by buying from a Buick dealer.*

He has an unusually wide assortment. He prices his Buicks fairly and stands squarely back of them. His establishment is *the* place in your community to buy a used car.

Buick-Motors: Dealers sell used cars on the extremely liberal General Motors time payment plan

BUICK MOTOR COMPANY, FLINT, MICHIGAN

Division of General Motors Corporation
Canadian Factories: Builders of Buick and Marquette Motor Cars
McLaughlin-Buick, Oshawa, Ont.

Another New CASE tractor

HERE is another new Case Tractor—the Model "C", a 2-3 plow size. This tractor, which is a smaller brother to the Model "L", offers something entirely new in power output and all-around usefulness.

New Power for Size and Weight. The tractor is low and compact. It is only 48 inches high . . . weighs but a trifle more than two draft horses . . . yet it pulls 2-3 plow bottoms . . . a 22x36 inch thresher with all attachments . . . or other machines of comparable capacities.

New Speed for Farm Work. Three forward speeds, $2\frac{1}{3}$, $3\frac{1}{3}$ and $4\frac{1}{3}$ miles an hour, provide the proper speed for highly efficient performance of every kind of field job. This enables you to do more work in a day.

New Range of Usefulness. The tractor is adapted to a wide range of drawbar, belt or power take-off operations. Because of its compactness and light weight, it can be used for more jobs—more days in the year. It turns in short space and is easy to handle.

Never before have you been able to get a tractor with this combination of power, weight, size, speed and ease of handling. These advantages mean new opportunities in profitable tractor farming. Send for more information. The coupon is for your convenience.

J. I. CASE CO., Inc., Racine, Wis.

1. Powerful, valve-in-head engine.
2. Removable cylinder sleeves.
3. Heavy 3-bearing crankshaft drilled for pressure lubrication.
4. All parts sealed against dust.
5. Hand operated clutch, easily handled from the ground or tractor seat.
6. Final drive of strong steel roller chains, enclosed and operating in oil.
7. Three forward speeds, $2\frac{1}{3}$, $3\frac{1}{3}$ and $4\frac{1}{3}$ miles per hour.
8. Irreversible steering gear. Outside turning radius—10 ft.



POWERFUL LIGHT and FAST for EVERY PURPOSE



Mail This Coupon

J. I. Case Co., Inc.
Dept. B-87, Racine, Wis.

You may send me without obligation a copy of your literature on the new Model "C" Tractor.

Name

Address

We want your feet to be really healthy and comfortable



FIRST:

Get this free book, "The Care of Farmers' Feet," written by Dr. Lelyveld, noted podiatrist. Write to the United States Rubber Company, Dept. FFF-20, 1790 Broadway, New York.



SECOND:

Demand comfort and flexibility even in the heavy footwear you buy. And—make sure that it fits.

NOW, about that little book we'd like you to have. Dr. Lelyveld wrote it especially for the United States Rubber Company. He is a noted podiatrist (foot-specialist) and Executive Director of the National Association for Foot Health.

All through the book you'll find interesting discussions on corns, bunions, ingrown nails, chilblains, itching feet, etc. Not only are the symptoms of various ailments explained—but you'll find simple, common-sense treatments suggested.

In spite of the fact that winter is on full blast now, you've got to be outdoors. Measuring around in the hog lots, care of cattle, with those winter feeders coming along.

And it's no fun to have foot troubles in the winter time. That's why we would like very much for you to have this little book, "The Care of Farmers' Feet."

And see that your heavy footwear fits

Honestly, there's no other piece of footwear that can cause you more trouble than a rubber boot that doesn't fit. That's why "U. S." Blue Ribbon Boots and their makers are so strong on fit.

As a matter of fact, "U. S." Blue Ribbon Boots are made on costly aluminum lasts

which duplicate the shape of your foot precisely.

When you're in town this week, make this test yourself—slip on a pair of "U. S." Blue Ribbon Boots. Note that snug comfortable feeling around the heel and ankle. And the ball of your foot will feel as though the boot were moulded right around it. Take a few steps and notice how that "rocking-chair" curve in the sole, with the square, flat heel, puts spring into your step.

Besides, you'll be sure to notice the smooth, even flexing of rubber and lining over the instep, to avoid any danger of injury to your arches.

A real test for wear

Just to make sure that your "U. S." Blue Ribbon Boots are going to stand up under the rough usage you are likely to give them—in the Blue Ribbon testing laboratories a machine presses rubber against swiftly revolving emery, very much like holding a boot against a grinding wheel. The rubber in some footwear chafes away at the rate of 4/5" per hour. The "U. S." Blue Ribbon standard is 1/5" per hour.

United States Rubber Company

"U.S."

BLUE RIBBON



foot-saving heavy footwear



"U. S." Blue Ribbon Boots

Get one in your hands sometime. Twist it. Bend it. You'll quickly recognize its superior qualities. Red upper with gray sole, ebony black upper with white sole. Three lengths—knee, medium, hip.



"U. S." Blue Ribbon Walrus (All-rubber arctic)

This is one you'll appreciate on the coldest day. Slips right over your leather shoes. Kicks off in a jiffy. Built to stand the hardest usage. Red upper. Gray sole. Four or five buckles.



Style for the Modern Farmwife

Gaytees are the most stylish women's overshoes in the world—style authorities have said so. Many different colors and fabrics, too, to match your coat.

Gaytees come in cloth or rubber—in high or low height with snap fastener, Kwik-glide fastener, or buckles.



For Son and Daughter

Keds are the most popular rubber-soled shoes in America. They give barefoot freedom—the feet to healthy growth—the protection you want in gymnasium, basketball and wear—for indoor and outdoor use. Recommended by physical gymnasts.

February 8, 1930

PENNSYLVANIA FARMER

(205) 25

New Life for Apple Trees

By W. E. WIECKING

THERE are any number of old apple orchards in this part of the country that have been planted long enough to be bearing good and regular crops of apples, but do not, for one reason or another. Some are fairly young trees that were planted in the hope of adding to the farm income and then were neglected because the orchard work interfered with the regular farm work. Some are much older and have become scaly and unproductive. The advent of the codling moth and the San Jose scale has changed orcharding from the comparatively simple process that it was in pioneer days to a highly technical undertaking.

Not every one of these old orchards is suitable for rejuvenation. Many should be left to go into oblivion by the simplest route. However, the farm income may be materially increased with a little extra labor if the trees are of bearing age and capable of producing good crops of apples every year, if the orchard is located right, on a good soil, and the trees are of a desirable commercial variety.

Most Important Part

Perhaps the most important part of the rejuvenation process is the pruning. The object is to give them an open top and one that is low enough so that the fruit may be easily reached at picking time; also an even distribution of fruit spurs so that the trees will bear fruit in about the same amounts each year. Most old apple trees are a tangle of limbs, many of them dead. The dead limbs should be removed. Then the owner should study each tree to determine whether more limbs must be removed to open up the top so that each branch, twig and fruit spur in the center will be exposed to the life giving sunlight.

If the trees are not in a very vigorous condition, as shown by the growth of new wood, the removal of the dead limbs may be all that they will stand the first year. It may be necessary to head back a few of the leading branches and possibly some of the water sprouts also, so that they will begin to develop fruit spurs. It is the equal distribution of fruit spurs over the growth of different years that makes the trees productive annually. If an apple tree is left to itself it will have a big crop every other year and scarcely any on the alternate years. Pruning corrects this habit by stimulating the growth of new fruit spurs on the alternate years. After a few years of care in this respect the tree will produce almost as large a crop one year as another, unless frost or other factors intervene.

Dormant Sprays

After tops have been opened and the dead wood removed, the next year begin heading back trees that are too tall. On vigorous growers, like the Ben Davis, eight or ten feet may often be taken from the top-most branches to advantage. This brings the head of the tree down where it should be for economy in pruning, spraying and harvesting. It is advisable to scrape off all the old dead bark from the trunks and larger limbs, using an old hoe. In this way a breeding place for codling moth and other insects is removed.

Dormant spray for scale should follow as closely on the pruning and scraping as weather will permit. I have seen old trees take on new life and look like youngsters again in the first season following one application of lime sulphur or a miscible oil in early spring or late winter. One does not realize the amount of vitality that these small scale insects are sucking from the trees every season until he has seen the results of this spray on an old tree. For a

small orchard, the barrel type of sprayer will give reasonably good results, but the larger outfits, although they cost more, apply the spray at a higher pressure, which makes for efficiency and economy of material.

Necessary to Fertilize

In order to bring the new orchard up to the peak of its production, generally it will be necessary to fertilize. Most farm orchards were planted on rather poor soil, reserving the good soil of the farm for field crops. This type of soil usually is well supplied with potash but is deficient in phosphoric acid and nitrogen in available forms. The potash may be in such a form that it will not become available until the humus supply of the soil has been built up. Heavy application of barnyard manure is the quickest and best way to build up this humus supply and also supply plant food. If this is not available it will be desirable to keep the orchard cultivated in early summer and then plant a cover crop of rye and vetch. This crop must be turned under the following spring. In this way the humus supply will be maintained.

In addition to the cover crop, it will be necessary to add some available form of nitrogen and phosphorus. This can be done by adding from five to ten pounds of 16 per cent superphosphate to each tree. The first year four pounds of nitrate of soda and two pounds of muriate of potash per tree should be added also. This fertilizer should be spread evenly over the ground and should not be placed directly beneath the tree.

As much of this treatment as it is possible to do should be done the first year. Great improvement in the condition of the trees will be noted, however, if only the pruning and spraying portion of the program is carried out. The improvement that this causes will be sure to encourage the orchardist to try other portions of the rejuvenating process.

Trees in Wrong Place

A FINE big tree is a beautiful sight, but if it is in or by our vegetable garden it is an expensive luxury. Year after year we may plow around a tree and from force of habit hope that the roots and branches of the tree will not reduce our crops of vegetables. However, the result is inevitable. The tree always exacts its terrible toll. The worst tree of all is the gorgeous American elm. It has roots close to the top of the ground and "miles" long. Maples and oaks are nearly as bad and just as worthless.

There may be a real or sentimental excuse for a nut tree or fruit tree, but it is dollars to doughnuts that the trees should be ripped out. I like to dig a ditch two feet wide around the big trees and at least a foot away from the trunk. Then as the roots are uncovered a section of root nearly two feet long is chopped out so that digging may continue. In this way the stout part of the roots is cut away and the stump is cut from the trunk after the tree falls.

Some people just hate to cut down a fine big tree even if it is in the wrong place. The best way to overcome the dreaded ordeal is to set a few desirable trees around the home and farm buildings to make up for those that should be pulled out.

Roscoe DeBaun.

WAR against the jack rabbit last year in the West netted more than 8,000,000 skins and a profit to farmers and stockmen, from the sale of the pelts, of about \$2,000,000.

Control operations against injurious rabbits are conducted by the Bureau of Biological Survey of the United States Department of Agriculture.



AT LEFT: Fruit sprayed without KAYSO; note uneven coating. —BELOW: Note even coating on fruit sprayed with KAYSO in the mixture.

Better fruit—better prices with KAYSO in the spray!

What good are rich soil and pedigreed trees if the orchard pests get in their damaging work? And what good are expensive spray materials and labor if your fruit isn't fully protected against those pests?

A spotty spray can never be full protection. It exposes fruit and foliage to attack, or burns blotches and lowers the market value of the crop.

Then why take a double loss—on fruit and on spray materials? Use Kayso.

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Kayso is a calcium caseinate preparation which spreads the spray in a heavy mist that covers the surfaces evenly and completely. You're not only assured of thorough coverage, but Kayso, through its adhesive properties, makes your spray stick. Heavy dews, or even rainstorms, will not wash off Kayso-treated sprays.

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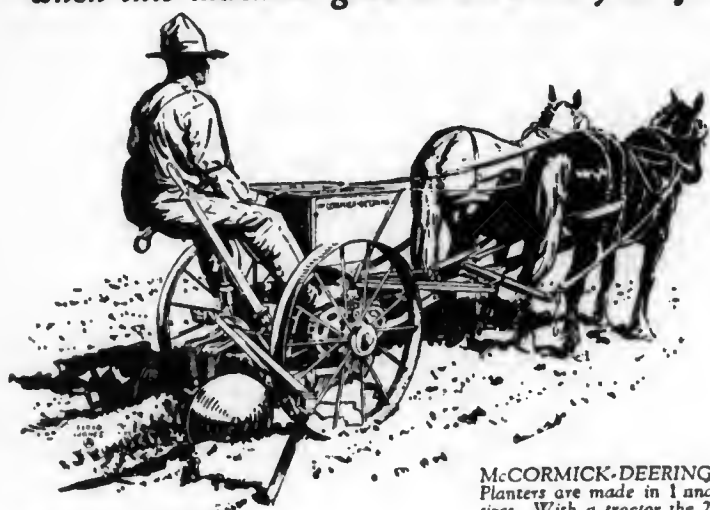
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Fertilizer Attachments Available for Both High and Low Analysis Fertilizers. Convertible disc covering gangs for ridge covering or shallow covering in furrow. Shallow covering increases yield; due to quicker germination, better weed control, and less severity of Ruitocotonia.

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THE BERLIN FRUIT BOX CO., Berlin Heights, Ohio



The program must be built out of the commonly recognized interests of its members.

Club Programs That Get Somewhere

By W. R. GORDON

"TIME to plan another year's program. What shall we do this year?" That's the question uppermost right now in the minds of Grange lecturers, leaders of farmers' clubs, Farm Bureau committees and any number of other community-minded rural leaders. The writer has been conducting conferences for the past five years with groups of these volunteer workers. Recently a very successful club officer described her method of program planning. We were so impressed that we have tried to reproduce here what she told us, knowing that there are hundreds of others who would enjoy comparing notes with her. Here it is.

A Successful Leader Gives Her Idea

"How do we go about planning our club program? Your question makes me feel apologetic, for it's quite simple. But before I describe it, I want to make two observations. You see my dramatic interest makes me want to set the stage before I begin. Or maybe it's because geometry was my favorite subject in high school that I want to begin with two established principles.

The First Principle

"From observation we all know that people do not like to be assigned jobs arbitrarily. For two years I tried using such devices as 'Answer to Roll Call with a Quotation from . . . ' or called for response to some question like, 'What Invention Has Been of Most Help to the Farmers?' Practically all the men and most of the women were quite indifferent to this intellectual prod. I can yet hear them repeating, 'I have nothing to say at this time.' I came to think they were hopeless.

"Then there were assignments of recitations. I even copied them to make it easier for the members. This was little better. Some even forgot to bring the selections to the meeting, or declined to read them. What was the matter? These were normally intelligent people in my own neighborhood, who seemed to find something interesting to talk about as soon as the formal part of our meeting was over. I'd hear them discussing with animation last night's radio program, or arguing about the value placed on the 'reactors' in the Jones dairy herd recently tested for T. B. Women were talking about their children, their chickens, or what they were going to take to the bake-sale next Saturday.

"It suddenly dawned on me that my assignments were inconsistent and forced. I wasn't beginning with what our members were concerned about in

their every-day lives, but with what I thought they ought to be concerned about. Instead of building up a program, I was handing one down—doing it with worthy motive to be sure, but with no less sorry results for the club. The people who were coming to meetings were attending for something else than I was responsible for. This hurt my pride. And what of the many who were not coming at all? A part of the fault must be mine. My attitude was not that of a leader but of the reformer. It has taken some time to get to it, but here's my first principle then: 'The program of your community club must be built out of the commonly recognized interests of the members.'

The Second Principle

"For this principle take illustrations from our leaders' conference this afternoon. You recall the man who said his members only 'enjoyed serious discussion.' That they didn't care for socials and entertainments? You know without visiting that club that it's made up almost entirely of older people. Then there was the young woman on your left who said they had mostly plays, socials and dances in their club. That's a young crowd.

"Neither of these organizations is realizing anything near its possibilities. Both are doing important things, but not enough of some things and overdoing others—that is if they profess to be community clubs.

"As soon as a club limits itself to any type of activity, then all the other people who may not be enthusiastic about that sort of thing will decide to spend their time somewhere else. Every time we hold a meeting at our hall I realize that I am expecting our folks to leave their radios, a good book, some work they wish to complete, visiting with neighbors and a thousand things that they find interesting. Therefore, my second principle is that: 'Our people will continue coming to meetings as long as they are getting something they really want.'

"Most people will say, 'Of course' to both of these; and yet I tried planning programs in defiance of both of them. And I am of the opinion that there are many others doing the same thing.

Running an Organization Like Running a Business

"As you know I have been rather successful operating this farm. There is one practice I follow that has been very helpful to me. I religiously take an inventory every year. I tried this in our club. A committee met at my home one evening and together we



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KELLY BROS. NURSERIES

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took stock of our organization. We ruled off columns on sheets of paper and put headings down as follows: 'Name,' 'Age,' 'Married or Single,' 'Means of Earning a Livelihood,' 'Special Talent or Hobby,' 'Other Interests,' 'What Might They Contribute?' We were able to get 35 names on a sheet of 8-by-11 paper (typewriter size). When the task was completed this sheet set forth in striking fashion our stock in trade, our raw materials.

What Members Expected of the Organization

"Next we set about listing what services and satisfactions our members wanted. The columns headed 'Means of Earning a Livelihood' and 'Other Interests' helped us in this. Then it was we began to see how inadequate were our former programs. The pastor of one of our two local churches was under consideration. Some one mentioned that he was very much interested now in raising money through his church to erect a tablet to the memory of the World War veterans. Let's have him discuss that some evening? Then some one else suggested: 'Maybe we can lend some help to this.' We did. How about the members who belonged to the rival church? (I use rival advisedly.) Weren't they 'conscientious objectors'? Well a few were a bit 'thin-lipped'; but one of their group saw the need for some playground equipment for the school. When our help was solicited we gave an entertainment to help with that too.

"The school teacher was trying to establish a band. We could earn his help and support for our program if we took an interest in his band. And so we continued, until we saw how completely the interests of our membership were the interests of the community. When the program was complete we found we had a list of the things that our people were working for and not what we thought they ought to be working for.

Around the Year with Activities

"Now we had estimated our raw materials, the talents and abilities of our members, and had listed what would be the finished products of the future, what our members were striving to do. The next step was to plan methods of converting raw materials into finished products. I referred to my scrap books. (I am an inveterate collector of ideas, particularly of how others have done things.) We again reviewed our talent. Who could do what? Here's where we had to fight that tendency to ask everything of a small number of willing ones.

"Then each member of the committee was assigned a major project and asked to outline the year's features for that particular line of work. Then we compared notes. Suggestions were coming thick and fast now. The list was a long one and included music, plays, topics for discussion, book reviews, lectures, community improvement practices, business practices, seasonal farm questions, reports and discussions of what other organizations and individuals in our midst were doing. But every item in the program was a step in getting nearer to a few definite and important objectives. And these objectives were mostly ones that not only our club but the whole community were vitally interested in. The program planned a year in advance was the beginning of a five-year program.

"We did another interesting thing. We compiled a 'Source of Help Book,' listing every agency and organization that could furnish help or information. 'There is lots to be done yet'—there are many problems that we haven't found a solution for yet. So that is the why of our farmers' club. Here's a copy of this year's program."

I thumbed through a neatly mimeographed program wishing I might attend every one of the sessions. I know I'd get some good ideas and enjoy every minute of them.



"HEY, BILL - WHEN YEH GOIN' TO GET HEP TO Y'SELF?"

"Whata yeh mean—hep to m'self?"

"Why, man, aren't you wise yet that I got as much fertilizer on my wagon as you got on yours?"

"How come? I got four times as much on my load as you got."

"Sure, you got four times the load. I'm not talkin' about load. I'm talkin' about fertilizer!"

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"A dollar saved is a dollar earned."

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The NEW IDEA Automatic Feed Safety

The Most Important Spreader Invention Since the Wide-Spread Distributer

EVERYONE who has used a spreader has occasionally forgotten to throw out the feed when stopping the beaters.

The load has jammed back, choking the cylinders and perhaps breaking some conveyor part. Such trouble can no longer occur with the famous NEW IDEA Spreader equipped with the recently invented Automatic Feed Safety, which automatically stops the feed when the cylinders are stopped. Even if the driver forgets, the NEW IDEA can't forget.

THE 1930 NEW IDEA is the only spreader in the world with this practical trouble-preventing feature. Here is another instance of that New Idea leadership which has developed a continuous succession of spreader improvements, ever since the original New Idea invention of the wide-spread distributor. New Idea engineers are never satisfied with anything less than the best. New Idea Spreaders carry a year's guarantee against breakage.

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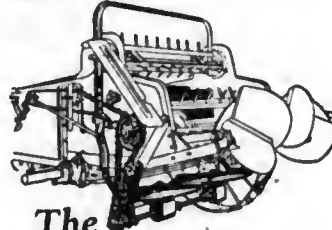
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With this machine you can't jam the feed or run the load into the idle cylinders



The Lime Spreading Attachment

Turns any Model 8 NEW IDEA into a perfect one-man Lime Spreader. Attached in 30 minutes. No shoveling back of load, no dusty labor. Controlled feed, 1 1/2 to 5 tons per acre. Large capacity.

Price F. O. B. Factory **\$35**

The Story of Woodbine Farm

By W. D. ZINN

CHAPTER VI

ON the 28th day of October, 1876, my father, my two brothers and myself built a fence through the lower end of the farm. After having finished the job and started toward the house, my father challenged any one of his boys to wrestle with him. But we knew too much of his ability to wrestle to accept the challenge.

The following Sunday morning one of my brothers brought my father's saddle horse to the front gate and tied it to the hitching post to wait for him to ride to his appointment ten miles away. Before he got ready to start he complained of being ill. It was the first time any of us had ever heard him admit that he did not feel well. However, he continued to grow worse and on Thursday, November 2, passed away at the comparatively young age of 57.

I have known but few men who had the physical endurance that my father possessed. He was a very hard worker. Yet I have heard him say that he did not know what it meant to be tired. He was a medium-sized man, never weighing over 160 pounds. He was considered very much above the average as a farmer. He got a great deal of pleasure out of seeing the crops grow. When we think that in that day we had but few experiment stations and practically no scientific agriculture we wonder how farmers got along as well as they did.

Ready to Help

My father never became so busy on his own farm that he would not take the time to go to help a neighbor if his assistance was needed. He did not have an enemy in the neighborhood. He was very fond of jesting with his friends. His educational advantages were very limited indeed. I do not suppose that he ever went to school more than 12 months in all his life and yet he had always been a hard student. He was fond of reading and often, after having spent all day in the field at hard labor, would sit for hours at night reading by a kerosene lamp.

My mother, being a good business woman and having assisted my father in the management of his business ever since she had been in the home, was persuaded by the neighbors to qualify as administratrix of my father's estate. Because of the indebtedness against the estate this was no little task. But it is due my father to say that this indebtedness was largely brought about by his having become surety for his friends. My father, being strictly honest himself, felt that most other people were honest and would not permit him to pay their debts. As a business man, this was my father's greatest weakness.

Notes to Pay

He usually consulted my mother before making a business deal and generally heeded her advice. There were two occasions, however, when he failed to listen to her. These he deeply regretted during the remainder of his life. On one occasion a friend came to him to secure his signature to a note, which at that time, was for a large sum of money. Mother begged him not to sign the note, but he could not resist the pleadings of his friend. Later he had the note to pay.

In another instance, a certain woman had not signed a deed for a piece of land that was being conveyed to my father, although she had a prospective legal interest in the land. It was learned that this woman would sign the deed upon the receipt of fifty dollars. Again my mother pleaded with my father to

pay the fifty dollars, but he said the woman was not entitled to anything and he did not believe she would ever demand it. Again he placed too much confidence in humanity. The woman finally fell heir to one-third of the farm and demanded her inheritance. My father's failure to heed the advice of my mother in this instance cost his estate \$1,035.

As previously stated, my father owned two farms, one, a part of which is called Woodbine Farm, and the other known as the River Hill Farm. A decree of court was obtained for the partitioning of the two farms among the seven children and the widow. The River Hill Farm was assigned to two of the first set of children. The home farm was divided among the remaining five children and my mother, who was given 45 acres, which was cut off from the five parcels. Before any heir could rightly claim his piece of land he had to pay his share of the indebtedness of the estate, amounting to \$3,000.

Memories of the Sale

I was given 21 acres, but 11 acres of this was cut off for a part of my mother's dower. A neighbor, John F. Woodford, who was one of the best business men in the community, came to me after the farms had been divided and said: "Willie, you did not get anything out of your father's estate. I would not pay the indebtedness against it for all you get. I would go off and leave it." I explained to him that if I did that and the ten acres of which I then had possession, did not bring the debt, the court would sell the 11 acres on which my mother's home stood and she would be homeless. "I did not think of that," remarked my neighbor. "You stick to it and I will help you out." After buying two heirs out I was still worse in debt, but this good neighbor became surety for me for \$1,000 in spite of the fact that he did not believe the farm worth the debts.

Nothing is more vivid in my mind than the day of the public sale of our personal property. It was during the late fall of 1876 when prices of livestock were as low as I have ever seen them. Good horses were sold for \$50 and \$60. The auctioneer was a neighbor who had much sympathy for our family. When one of them made a bid he was not slow in "knocking the article down." In my imagination I can see my poor mother yet, as she stood there and bid on furniture which she paid for with money earned by her own hands.

I resolved that such a thing should never occur in my home should I leave a widow behind. Ever since we have had anything my good wife's interests have been safeguarded, first by carrying a life insurance policy when I was deep in debt and later by making a will that gave to my wife what rightly belonged to her.

Again, in my imagination, I can see the family circle the night after the sale, when my mother was listing the property she had bought that day and found that it amounted to \$640, not a dollar of which was in sight. Nevertheless, she lived to see every dollar of the debt paid and to enjoy with her son a new and modern house, where she made her home for many years until her death. This did not occur until nearly 40 years after my father had gone to his reward. Her heart often overflowed with gratitude when she spoke of our poverty during the eighties and com-

IMPOSSIBLE" Said These Farmers

When they saw the "Weed Hog"

Pennsylvania farmers have always wanted a tool that would do the things the WEED HOG does but they never believed such a tool could be built. When the WEED HOG was introduced to them, they saw it was a machine that would work among stones and in hard, stunted stubble with a quick bending, stretching or breaking they called it "impossible." The impossible was achieved before their eyes. They saw the WEED HOG at the State College and on their own farms and orchards work under rocks, stones, stumps and on hard stubble. They were amazed—for not a tooth stretched or broke. They saw the WEED HOG rip up orchard sod under cover. They saw the WEED HOG tear out grain and stubble and mix it with the soil, leaving a fine, uniform seed bed. They saw the WEED HOG work plowed and unplowed land, breaking up clods and lumps, and watched it break up hard, stunted stubble and mix it with the soil, leaving a fine, uniform seed bed. They saw the WEED HOG work plowed and unplowed land, breaking up clods and lumps, and watched it break up hard, stunted stubble and mix it with the soil, leaving a fine, uniform seed bed.

OUTSTANDING FEATURES
STRENGTH: The WEED HOG is built entirely of tempered spring steel. Teeth are **GUARANTEED FOR LIFE** against bending, stretching or breaking, even in the most compact soil.
CAPABILITY: Teeth may be spaced on wheels or on a bar. A few from a few feet to full plow depth.
EASE IN TRAIL: The WEED HOG is built with ample clearance and no front bar to drag. It works plow depth in trash, straw, and manure with practically no clogging.
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Clip coupon for free pamphlet which tells all about the WEED HOG, what farmers say about it and shows pictures of it at work.



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PENNSYLVANIA FARMER

pared it with the blessings we later enjoyed. I was more than \$3,000 in debt. Such an indebtedness in the eighties and nineties was harder to pay than a \$10,000 debt would be today. There were but few banks and money could hardly be had at any of them. If there was any one thing more than another that helped me to pull through those panic years it was that I had gained a reputation for being prompt in meeting my obligations. I was paying ten per cent interest on a part of the money I had borrowed. The \$1,000 for which my good neighbor, Mr. Woodford, had become surety was borrowed at 6 per cent to pay off that indebtedness.

Good Neighbors

I was fortunate in having a number of other good neighbors. About 45 years ago, E. R. Dyer came into our community and became my nearest neighbor. For a long time we owned a 600-acre farm in partnership and would buy and sell the stock together. I have never asked him for a favor that he did not grant. Sometimes he insists that I have done more for him than he has for me, but of that I am extremely doubtful. In 1899 we were building the barn on the farm and I became so crowded with work that I was not getting my corn cultivated as it should have been. One morning I looked across at the field, that at that time was green with weeds, and I beheld all Mr. Dyer's force with his teams in the field plowing and hoeing the corn. I shall never be able to repay him for what he has done for me. I feel that this story would not be complete without the mention of his kindness and neighborliness.

Grain for Sheep

MR. D. asks: "When shall I begin to grain my sheep that will drop lambs in March?"
Unless he has been feeding them legume hay and they had a bluegrass sod on which was left a good growth of grass last fall, he has already lost some time. Even if they have all these things they should have grain six weeks before they are due to lamb.

We have one flock of sheep due to lamb about the first of April. They have a good bluegrass sod with a supply of grass left on the ground last fall and all the second crop of red clover hay that they want to eat. We expect to begin to feed grain about the middle of February. We have another flock with more grass than they can possibly eat and good mixed hay and some timothy and orchard grass that were cut before either came into head, and that hay would analyze from 15 to 17 per cent protein, which is higher in protein than the clover hay. This flock is due to lamb about May 1.

My readers will wonder why they were bred so late. The answer is that they are on a farm whose altitude is 3,300 feet, and we are apt to have snow flurries during April, and we can save a larger percentage of lambs by their coming at that time.

OLD Peter Skinfint has some very peculiar ideas about feeding livestock. He believes that it makes no difference if the cattle lose 200 pounds during the winter. They will have all summer to take it back on. He says he has noticed that when cattle lose 150 to 200 pounds they always gain more when they go to grass. He does not seem to realize that it costs twice as much to put on a pound that the animal has lost as to put on an additional pound.

He says his father fed timothy hay and corn to his milk cows and he would not show disrespect to his father's memory by changing the feed right on the farm where his father lived for 75 years. He never docks his lambs. He says if the Lord had intended that sheep should go without tails He would have created them that way.

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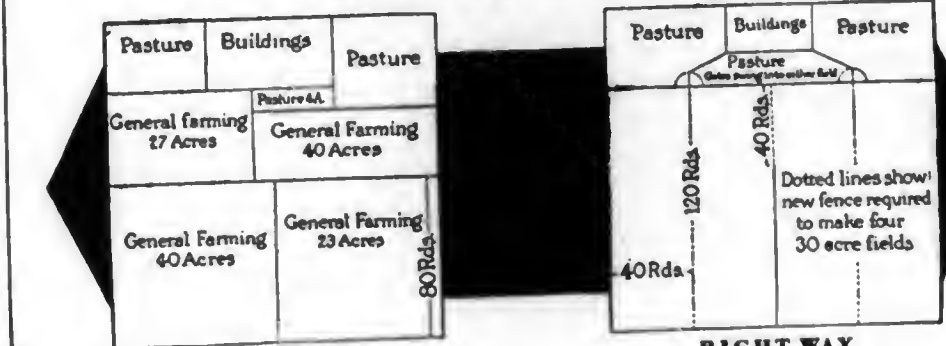
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Future Farmer War of Words

BELIEVING that public speaking contests are valuable in developing leadership, Senator Arthur Capper, through the Capper Farm Press, has agreed to offer \$1,100 in cash prizes to be awarded four young orators who will represent their respective regions in the final of a nationwide speaking contest put on by the Future Farmers of America, a nationwide organization of students of vocational agriculture. In addition, expense of the four contestants to Kansas City will be paid, the total expenditure being about \$2,400.

The first annual National Public Speaking Contest will be held in connection with the congress of vocational agriculture students in Kansas City during November of this year. State elimination contests will first be held, the winner to go to a regional contest, where a contender for the prizes will be named. These regional contests must be held before October 15. Regions are divided, with one finalist from each, as follows: North Atlantic, 13 states; Central, 12 states; Southern, 12 states; Western, 11 states. State, regional and national contestants will be allowed to select their own subjects but the subject must be related to agriculture.

Only members of the Future Farmers' Association which has a membership of 75,000 or more farm boys, will be eligible for the National Public Speaking Contest. First prize will be \$500; second, \$300; third, \$200; fourth, \$100. The national contest will be broadcast over the nation-wide network of radio stations.

Elimination contests in the various states will be under direction of state supervisors of vocational agriculture who will also conduct the regional contests in cooperation with Federal leaders. The National Future Farmers' Speaking Contest will be supervised by Dr. C. H. Lane, National Director of Vocational Education, and John F. Case, editor of The Missouri Ruralist, as chairman of an editorial committee representing the Capper Farm Press.

Why We Have Valentine Day

THERE once lived an old man named Valentine. He was always kind to every one. He visited old people and helped the poor. He often sent little messages to his friends.

There used to be no postman to carry mail, so Valentine sent his messages by pigeons. He took great pains in teaching them to go to the houses of his friends. They never made a mistake. In this way he made people happy.

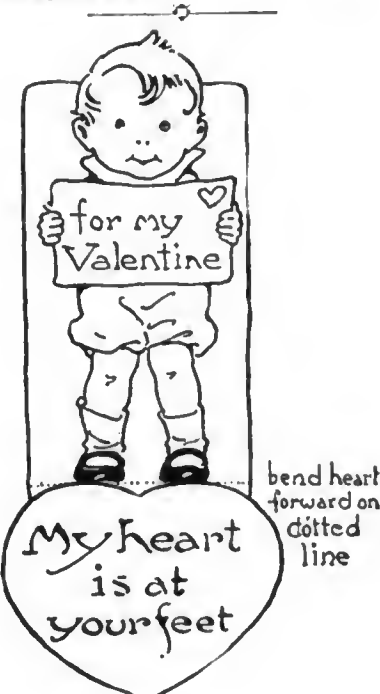
Every one loved Valentine except the king. He hated Valentine because of his kindness. One day he called his guards and told them to seize Valentine, and put him into the blackest dungeon in the castle. This they did, and the cell into which he was put had but one window.

Early in the afternoon he heard a soft cooing, and looking out he saw one of his pigeons, and he remembered he had not sent any messages that day. There was a little girl and a

sick old man who waited for his messages every day. Valentine had no pretty cards. But there were some violets growing between two stones of the window ledge. He also remembered a few scraps of paper in his pocket. He tore the paper into heart-shaped pieces, because the heart means love, made two tiny holes in each, and drew the violets through. The pigeons then took them to his friends.

Valentine, however, was soon released from the prison, because the king died and the new king was kinder. The people were glad when he was released and soon began to send messages, too. After Valentine's death his friends sent messages on his birthday, the fourteenth of February. That is why, each year, we send cards called Valentines, to our friends.

Submitted by Luella Stacey, Pennsylvania.



Abraham Lincoln

By Gertrude Wilson, New York

TO me, Abraham Lincoln will ever be the greatest American and the greatest President in all history. The spirit of honest Abe, the rail-splitter, is the true spirit of our nation—loyal, strong and, above all, just.

Can't you picture this man—tall, loose-jointed, awkward; yet with a certain grace and gentleness seldom seen in a man? Picture him on a November day striding over a stubble field, his dark, black hair whipped back from his forehead, his ill-fitting rusty-black coat twirling about his legs. A gigantic scare-crow in the wind! He leaves huge tracks behind imprinted in the soft ground.

Where is he going on such a cheerless day? 'Tis hard to say. But tonight when the snow begins to fall and there is a silver coat upon the brook there will be many miserable people made happier by a visit from Abe Lincoln. Medicine for a sick woman, a warm shawl for a shivering child, food for the starving.

When I think of this man—his kindness, his patriotism, his honesty; I always recall the story of a poor little girl who said of him, when he brought comfort to her miserable home: "God came, and his name was Abe Lincoln."

Lincoln's Steps Up on Failures

A YOUNG man ran for the legislature of Illinois, and was badly swamped.

He next entered business, failed, and spent 17 years of his life paying up the debts of a worthless partner.

He was in love with a beautiful young woman, to whom he became engaged—then she died.

Entering politics again, he ran for Congress, and was badly defeated. He

then tried to get an appointment to the United States land office, but failed.

He became a candidate for the United States Senate, and was badly defeated.

Then he became a candidate for the Vice-Presidency and once more was defeated.

One failure after another—bad failures—great setbacks.

Then he rose superior to all discouragements and disappointments, and became one of the greatest men of America—Abraham Lincoln.

CONUNDRUMS
Why is a caterpillar like a pancake?
Because it's the grub that makes the butter-fly.

What is the difference between a cat and a match?
The cat lights on its feet, and the match on its head.

How many tails has a cat?
Three. No cat has two tails; one cat has one more tail than no cat, therefore, one cat has three tails.

How do you make a Maltese cross?
Pull its tail.

When does a chair dislike you?
When it can't bear you.

When is a chair like a lady's dress?
When it's sat-in.

Why is a dirty child like flannel?
Because it shrinks from washing.

SHREWDNESS
If the head of Lee's army is at Martinsburg and the tail of it on the plank road between Fredericksburg and Chancellorsville, the animal must be very slim somewhere. Could you not break him?—Telegram, Lincoln to General Hooker, June 14, 1863.

Little Folks' Corner

My Pets

OVER since a tiny child I have had pets, some of these have been chickens, dogs, horses, cats, calves and kittens. I think the most loved of these were a pet hen and rooster. Dorothy and Jimmy, and a cat named "Hokey." Dorothy and Jimmy were Buff Orpingtons. My older brother was home one summer and spent most of his time killing and feeding flies to Jimmy. Jimmy seemed to like them.

Another cat I remember having was Rowena. Her name came from the book "Ivanhoe" which we were reading in school then. Rowena lived up to her name for she was certainly a beauty and the only cat I ever had that refused to be petted.

Although a sophomore in high school, I still love animals; now I have a black kitten, "Midnight," two calves, Jimmy and Bessie, and a tiny rat terrier which we call Jerry.

I seem to be the only one in our family who cares for cats, dogs and the like. The others usually object to stumbling over pans of feed at the door and sitting down on a cat.

Mary Barber, Pennsylvania.

My Pet Hen

I HAVE a hen named Boots. She is about two years old. When she was a little chick she had her leg broken and I put her in a box in the house. After she got well I let her run into the yard. Each evening she would come up to roost but instead of going to her box she would sit on my brother's shoulder and want to roost there.

After she was older I put her in a coop with some turkeys, pigeons, guineas and other chickens. We called them Boots and her Buddies. All of the other chickens died except Boots and one other chicken. We call-



Some Sayings of Lincoln

We cannot escape history. Revolutionize through the ballot box.

Let none falter who thinks he is right. It is no pleasure to me to triumph over any one.

Come what will, I will keep my faith with friend and foe.

All that I am, all that I hope to be, I owe to my angel mother.

There is no grievance that is a fit object of redress by mob law.

Suspicion and jealousy never did help any man in any situation.

FEBRUARY

The historical little month is here. Which gave to us two men so dear: George, the Father of this Yankee lad, And Abe who saved it from disband.

Two holidays thus have been made. When tribute to these great men is paid, So in spite of all its ice and snow, A welcome to this month we'll show. Written by Beatrice Shreiner, Pennsylvania.



Cecil county, Md.

A Fox Hunt

I HAVE two goats and am having much fun with them. They are Nanny and Bill. I also have three other pets.

I go to school at Muddy Creek. I have plenty of books and study them well. I am but 11 years old and in the seventh grade.

It is lonely out here in the country without anybody to play with.

Last week we went fox hunting. My teacher went too. We had much fun. We took our dog, Sport, who won a prize at a show in Burnsville. He won a silver cup. We also won two blue ribbons.

I am going to go to Florida for a vacation after I am through school. Then I am going to study art in England. Beatrice Phillips, Greene county, Pa.

Our Pictures

THE cats on this page are pets of Bernice Schmader of Pennsylvania, who drew their pictures. The pup belongs to Brother Benjamin.



PASSING EVENTS IN PICTURES



(Copyright by Underwood & Underwood)

1. Portland, Oregon.—"The Grand Old Man" of the railway transportation industry—the first locomotive to be operated in the Pacific Northwest. It carried both freight and passengers along the north bank of the Columbia River from 1862-1863, when that part of the country was still in the hands of the Indians.

2. Newark, N. J.—Dr. Lee DeForest, inventor of the three-element vacuum tube, watching and listening to a talking movie of himself delivering an address transmitted by a sight and sound film via radio without the use of land wires.

3. Reading, Pa.—Photo shows, left to right,

Councilman William C. Hoverter; Councilman Jesse George; Mayor J. Henry Stump; Councilman George W. Snyder and Councilman James B. Maurer—who, combined, give this city the distinction of being the only one in the United States with a 100 per cent Socialist government. Mr. Maurer was the Socialist candidate for Vice-President during the last national convention.

4. Tokyo, Japan.—Take your choice of five most beloved horses of Emperor Hirohito of Japan. Second from the right is "Fubuki," His Majesty's favorite steed.

5. Chicago.—Here are two generations of Indian artists at work in the sunlight outside their tepee studio. They are Albert Racine, a young blood artist of considerable promise, and Calf Tail, an old bow-and-arrow Indian. The latter, following tribal custom, is recording, pictorially, the outstanding events of his early, active life as a warrior.

6. A powerful and attractive view of the stately dome of the United States Capitol at Washington, looming from among the ermine draped trees and shrubs painted by the hand of the Storm King during the night.

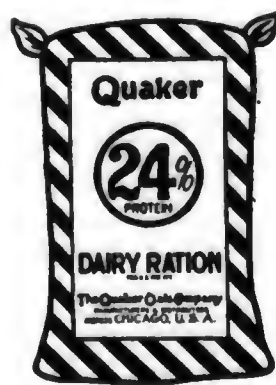


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Farm and Dairy

By L. W. LIGHTY

AN even blanket of snow covers the flower garden and all the rest of the land fifteen or more inches thick, but that does not affect memories or chill anticipations. There are ten thousand dormant buds under this snow, all ready to spring up as soon as the sun slips north of the Tropic of Cancer. Indeed there are a number of times ten thousand. The columbines themselves will foot up ten thousand. I wonder how many flower lovers have learned the wondrous loveliness of this very hardy perennial.

To start with, it is pest proof like the iris and peonies. Give it half a chance and it will propagate itself and creep along the ledge into the tree-covered area if it has only a bit of sunshine. Even grass and weeds will not discourage it. Proudly it lifts its head among the iris and peonies with the most lovely and delicate fern-like foliage. The long spurred blooms on long and almost invisible stems swing and sway to the lightest breeze, shimmering and scintillating like so many giant precious stones of rare value. The dazzling splendor of a large stretch of these plants in full bloom is too enchanting for words.

Endless Varieties

Of varieties there seems no end, because they readily hybridize and new things come to enchant you every year. The blooms have a deep cup of nectar. This above all other flowers attracts the ruby-throated humming bird and a number of them are hovering about all the time this plant is in bloom. A pair of these mites of bird life made a cute little nest 15 feet from the ground and not that far from the bedroom window last summer. While they covered their tiny specks of eggs and brooded the young not larger than a potato bug they all the time had a "birdseye" view of nearly a tenth of an acre of these charming flowers so rich in nourishment for them and their family. Hundreds of folks looked at the nest and assured me it was the first they ever saw. When the young ones flew out they were quite tame and seemed to play hide and seek for some weeks in the garden, but as the blooms became scarce they withdrew. Ere many weeks they will be with us again. Anticipations.

The columbine is a wild flower that belongs to us. The red columbine grows in many a partly wooded gravelly ridge where plants and seed can be secured. The plant grows 18 inches to two feet tall and blooms very profusely, being the earliest of them all. The color is a variable red, some are deep orange, ranging to almost maroon, but always there is a rich golden throat. The wild columbine of the Rocky Mountains is a sky blue, but also like ours, is variable, often running lighter to white. It is the state flower of Colorado.

No State Flower

Will Pennsylvania ever have enough esthetic pride to adopt a state flower? It is the only state in the Union without one. Let every flower lover insist our legislature give us the iris as our state flower. It grows wild here. We are growing millions and can grow billions to enhance the beauty and desirability of every home with ground about it.

In and adjacent to what my geography called the American Desert, but now we call Arizona, New Mexico, etc., a golden yellow columbine grows wild. Folks botanically inclined tell us there are a few dozen species and many varieties. Hybridizers have taken these flowers in hand and in many ways changed and improved them. At our place we have the tall (40 inches) and very large extra long spurred kinds on one side of the house and the wild or native kinds on the other.

The ruby throat, after finishing the reds, whirls to the multi-colored large ones and of course brings the pollen with it, so we have, as a result of this crossing, endless colorings and tinting as well as a great variety in shape and form. Some are double almost like a little rose, others are semi-double and very large with the most unusual color combinations. Many stray plants from seed come in the iris beds and give us a great surprise, being different from anything we ever had in the garden.

I presume an "expert" could hedge in the columbine with a lot of difficulties. He would, no doubt, find a lot of bugs, worms, borers, etc., to fight, but in our garden and on the woodland knolls where columbines have thrived for years and years, not a thing ever molests them.

He would grow seedlings and do transplanting and divide large plants to increase them, all of which can be done, but it is difficult, and the columbine somewhat like the poppy, does not want to be monkeyed with much. Sow the seed where you want the plants and let them grow in their own way; you will have no trouble but endless pleasure.

When to Sow

The seed may be sown in the early spring or in the early autumn; that is the time the plant does its sowing. If your soil is inclined to be dry the little seedlings may need water. The seed is very small and like all small seeds, should be covered with rotted leaf mould or woods soil and the germination will be splendid.

The early autumn sown seed often blooms the next summer, but the spring sown rarely. It makes a good stalky plant and gives a big harvest the next season and at least one season following. The native reds seem to be true perennials, but some of the hybrids come nearer to being biennials. That is to say, they give us one season of great bloom and then decline and after another year are gone.

The columbine seems to prefer a loose light soil of a gravelly nature, but we grow some in very heavy stiff clay. They behave splendidly there, but they will not thrive in a wet or soggy place.

We found the columbine made a grand border for the iris or peony beds. The peony is a rather stiff or rigid style grower with gigantic blooms, so these lithe flexible female plants with the blooms swaying on almost invisible stems, give a grace and buoyancy that is very pleasing. We use them freely for this purpose as well as in solid areas.

Columbine, iris and peonies make a trio that has given us endless garden pleasure, because they are perfectly hardy, permanent, pest proof and care for themselves under all conditions. They bloom in April, May, June and into July. They are very excellent as garden or cut flowers.

In shape, form, color, shade and tint there just seems no end and in brilliancy none surpasses them. Indeed about every farm house there should be a goodly area of these glorious flowers. They do not increase your work but lessen it, as joy and pleasure lessen work by making it more delightful. Once established they stay there winter and summer, giving annual crops of pleasure.

IN the last few years there has been a great increase in the demand for legume hays on the part of the dairy industry, especially for alfalfa hay, because of their high value as food, their value in balancing the ration, and the economy in using them, says the Bureau of Agricultural Economics, U. S. Department of Agriculture.

Dairymen at Harrisburg

PENNSYLVANIA dairymen turned out in full force to their annual meeting at Harrisburg this year. A fine program had been arranged by Robert Brinton, president, West Chester, and R. H. Olmstead, secretary, State College. Live discussions followed the presentation of each subject and the general feeling was that this was one of the best programs in the history of the association.

President Brinton gave a clear, comprehensive summarization of the present dairy situation.

"Electric Refrigerators in the Cooling of Milk" was discussed by R. U. Blasingame, of State College. Much interest was manifested in this comparatively new method of cooling milk. A number of firms are now putting out farm sized outfits and the indications are that the use of these electric refrigeration units will increase rapidly.

Dry-Fed Calves

C. B. Bender, New Brunswick, N. J., told how they had successfully raised dairy calves for eight years at the New Jersey Agricultural Experiment Station on dry-fed calf mixture composed of 100 pounds of yellow cornmeal, 150 pounds of ground oats, 50 pounds of wheat bran, 50 pounds of linseed meal, 50 pounds of soluble blood flour, four pounds each of steamed bone meal, pulverized limestone and salt.

The calves are allowed to suckle their dams for 48 hours. They are then weaned and receive a maximum of three quarts of milk daily. When the calves are one week old a little of the dry mixture is put into their feed boxes after each milk feeding. When the calves are three weeks old the milk is diluted with water so that by the end of 30 days the calves are subsisting on one pound of the dry-fed mixture, legume hay and fresh water. The allowance of dry-fed mixture is gradually increased so that by the fifth month the calves will be consuming five to six pounds daily.

"Nutritional Aspects of Milk Production" was discussed by R. A. Dutch, of State College. The role played by Vitamin A, B, C, D, E and G in nutrition was described and illustrated in a very interesting way by the use of lantern slides.

Undulant Fever

"The Truth About Contagious Abortion and Its Relation to Undulant Fever" was presented by E. M. Harmon, Des Moines, Iowa. A report of his address was published in this paper last week.

Even though the danger of undulant fever from unpasteurized milk is comparatively small, yet dairymen and boards of health are taking active steps to eliminate any possibilities of infection of humans from raw milk. The American Association of Medical Milk Commissions, which supervises the production of "Certified Milk," has passed the ruling that no dairyman may produce certified milk unless his herd is tested for Bang's disease, as it is known in cattle, and all reactors removed. The Philadelphia Board of Health has ruled that no raw milk may be sold in the city except from tested herds from which all reactors to the agglutination test for Bang's disease have been eliminated.

Doubtless other cities will also take similar action and observe every precaution to maintain a pure and wholesome milk supply throughout the country.

A. A. Borland.



As For Barn Equipment—



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8 1/2 pounds, 49 inches long, 24-inch barrel, offered assembled and refinished, without buy-out at reduced price, \$16.50. Mail cartridges \$3.50 per 100. Illustrated catalog, 300 pages, Army-Navy equipment, mailed for 25 cents. NEW circular for 25 cents. Established 1865. FRANCIS BARNERMAN SONS, 301 Broadway, N.Y.C.

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Do not confuse KOW-KARE with so-called stock foods and tonics, which frequently bring temporary stimulation—with little or no lasting effect. KOW-KARE is in no sense a food. It is a concentrated bleeding of iron, the great blood purifier and builder, and potent medicinal herbs and roots. KOW-KARE acts directly on the digestion and assimilation—builds natural vigor to convert heavy diet into maximum milk yield.



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Orphan boys' calves win five prizes at State Farm Products Show at Harrisburg. Photo of the Hershey Industrial Schools' calves at the State Farm Products Show at Harrisburg where the boys won five prizes, taking second, third, fifth, eighth and ninth places by the following boys respectively, John Kohr, John Savage, Robert Evans, Charles Emerick and Bruce Hiler. These boys are all orphans and prodigies of M. S. Hershey, the chocolate king, at his orphanage at Hershey, Pa.

Cow-Testing Assn. Reports

Titusville
THE Titusville Cow-Testing Association closed its fifth year December 31, 1929, with 19 whole-year members, and one part year member. There were 323 cows in the Association during all or part of the year.

The result for the Association for the five years is as follows:

| Year | Lbs. Milk | Lbs. Fat |
|------|-----------|----------|
| 1925 | 7510 | 291.1 |
| 1926 | 7396 | 288.9 |
| 1927 | 7154 | 291.3 |
| 1928 | 7557 | 300.3 |
| 1929 | 7783 | 311.0 |

Twelve herds with an average of five cows or more exceeded an average of 300 lbs. of butterfat. A complete list follows:

| Owner | Breed | Lbs. Milk | Lbs. Fat |
|------------------|---------|-----------|----------|
| James M. Kelley | R.&G.H. | 7518 | 306.0 |
| Clyde Kelley | R.&G.H. | 9975 | 346.1 |
| J. D. P. King | R.G. | 6326 | 342.9 |
| O. T. Ongly | R.H. | 10301 | 355.6 |
| A. K. Hummer | R.H. | 8297 | 334.1 |
| Robert Lewis | Mixed | 8395 | 330.9 |
| Albert Hasbrouck | R.&G.M. | 9233 | 320.7 |
| M. L. Penlon | R.&G.G. | 6325 | 312.3 |
| Norris L. Reed | R.&G.J. | 6347 | 310.2 |
| Will Hasbrouck | R.H. | 9506 | 310.1 |
| M. W. Beers | Mixed | 7474 | 302.9 |

One member with less than an average of five cows produced over 300 lbs. butterfat.

| Owner | Breed | Lbs. Milk | Lbs. Fat |
|----------------|-----------------------|-----------|----------|
| William Howard | R.&G.J. | 8501 | 373.0 |
| Byron Blakely | C. D. Sprout, Tester. | | |

Sparta-Saegertown
THE Sparta-Saegertown Cow-Testing Association closed its first year December 31, 1929, with 22 whole-year members and four part-year members. There were 353 cows in the Association during all or part of the year.

Seven herds with an average of five cows or more exceeded an average of 300 lbs. of butterfat. A complete list follows:

| Owner | Breed | Lbs. Milk | Lbs. Fat |
|----------------|---------|-----------|----------|
| J. G. Sherred | R.H. | 10915 | 339.1 |
| Merle W. Ongly | R.&G.H. | 9990 | 333.2 |
| Harry E. Pirth | R.&G.H. | 8817 | 313.7 |
| Burl Hayes | R.&G.H. | 8413 | 312.8 |
| Roy M. Bewley | G.H. | 9329 | 310.8 |
| Arthur Morris | G.H. | 8857 | 307.0 |
| J. L. Goodwill | G.H. | 8057 | 301.3 |

Alva Love, C. D. Sprout, Tester.

Sullivan County
THE Sullivan County Cow-Testing Association closed its ninth year December 31, 1929, with 19 whole-year members. In addition five members were in the Association only part of the year. The total number of cows for all or part of the year was 292.

The results for the Association for the nine years are as follows:

| Year | Lbs. Milk | Lbs. Fat |
|-----------|-----------|----------|
| 1920-1921 | 5,637 | 228.7 |
| 1921-1922 | 6,025 | 222.6 |
| 1922-1923 | 6,204 | 210.9 |
| 1923-1924 | 6,388 | 230.9 |
| 1924-1925 | 7,378 | 271.6 |
| 1925-1926 | 8,594 | 312.1 |
| 1926-1927 | 8,022 | 294.5 |
| 1927-1928 | 8,263 | 295.1 |
| 1928-1929 | 8,570 | 306.3 |

Ten herds with an average of five or more cows exceeded an average

production of 300 lbs. of butterfat. A complete list of these herds follows:

| Owner | Breed | Lbs. Milk | Lbs. Fat |
|-----------------|---------|-----------|----------|
| C. V. Driscoll | R.&G.H. | 12086 | 407.2 |
| Thomas Doyle | R.&G.H. | 11085 | 384.2 |
| J. W. Adams | R.&G.H. | 10293 | 371.4 |
| J. W. Kneller | R.H. | 10945 | 367.6 |
| F. V. Rohe | R.&G.H. | 11187 | 357.3 |
| Litzelman Bros. | R.&G.H. | 9873 | 338.1 |
| F. J. Murphy | R.&G.H. | 9566 | 335.6 |
| Taylor McCarty | R.&P.H. | 9106 | 319.3 |
| William Tubach | R.&P.H. | 8883 | 312.7 |
| Milton Taylor | R.&G.H. | 8375 | 305.4 |

M. A. Drayer, J. W. Learn, Karl Bower, County Agent.

Carbon County
THE Carbon County Cow-Testing Association finished its fifth year December 31, 1929, with five members. The total number of cows for all or part of the year was 111.

The result for the Association for the five years is as follows:

| Year | Lbs. Milk | Lbs. Fat |
|------|-----------|----------|
| 1925 | 8650 | 353.4 |
| 1926 | 10378 | 365.6 |
| 1927 | 9751 | 346.7 |
| 1928 | 9567 | 335.7 |
| 1929 | 10078 | 312.7 |

Three herds with an average of five or more cows exceeded an average of 300 lbs. of butterfat. A complete list follows:

| Owner | Breed | Lbs. Milk | Lbs. Fat |
|-----------------|---------|-----------|----------|
| L. A. Zimmerman | R.&G.H. | 13,691 | 442.8 |
| Wm. Steigerwalt | R.&G.H. | 10,243 | 366.1 |
| Harry J. Delong | R.&G.H. | 10,079 | 340.8 |

Eighteen cows produced over 400 lbs. butterfat.

Francis L. Sattizahn, Nich. M. Rahn, Tester.

Clearfield County
THE Clearfield County Cow-Testing Association finished its third year December 31, 1929, with nineteen whole-year members, and eight part-year members. There were 405 cows in the Association during all or part of the year.

The results for the Association for the three years are as follows:

| Year | Av. No. Cows | Lbs. Milk | Lbs. Fat |
|------|--------------|-----------|----------|
| 1927 | 202.75 | 5819 | 216.9 |
| 1928 | 201.58 | 6929 | 237.0 |
| 1929 | 221.08 | 6441 | 233.6 |

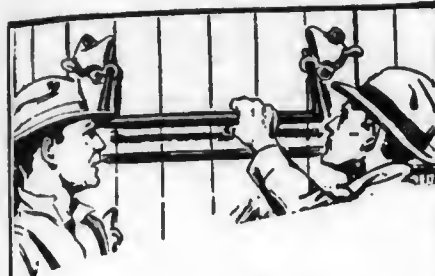
Six herds with an average of five or more cows exceeded an average production of 300 pounds of butterfat. A complete list of these herds follows:

| Owner | Breed | Lbs. Milk | Lbs. Fat |
|-------------------|---------|-----------|----------|
| Mrs. J. A. Liddle | Mixed | 8706 | 303.8 |
| John Flood | Mixed | 7317 | 339.7 |
| S. R. Thompson | Mixed | 7712 | 331.8 |
| William Ballor | Mixed | 7860 | 327.0 |
| G. B. Washob | R.H. | 7476 | 303.2 |
| C. O. Mattern | R.&G.G. | 6364 | 302.3 |

A. J. Moore, W. O. Mitchell, Tester.

High Guernsey Herd

THE registered Guernsey herd belonging to Farmhill Dairy, owned by Mrs. Henry R. Rea, Allegheny county, Pa., was the highest producing



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Box F-1, Conestoga, N. Y.

Guernsey herd enrolled in the Dairy Herd Improvement Associations of Pennsylvania during 1929. The average production of this herd of eight cows was 9,748 pounds of milk and 471.8 pounds of butterfat.

At the Farm Products Show at Harrisburg Mr. Corey C. Garey, herdsman at Farmhill Dairy, received the beautiful silver plate awarded by the Eastern Guernsey Breeders' Association in recognition of the production at Farmhill.

During their four years of dairy herd improvement association work Farmhill Dairy has had an average production of more than 400 pounds of butterfat each year.

Tom P. Whittaker, Tester.

Official Jersey Tests

POGIS' P. V. Farm Susie 395666, a pure-bred Jersey cow in the herd of Highland Farms, Westmoreland county, Pa., has completed her first official production test in which she yielded 561.74 pounds of butterfat and 12,206 pounds of milk in 365 days. Susie was started on this test when she was eleven years and eight months of age and with this record qualified for the Register of Merit of the American Jersey Cattle Club. Her sire is Papis 99th of Hood Farm 7th, and her dam is Nellie of Meadow Brook.

Torono's Blossom of H. F. 527779, another Jersey owned by Highland Farms, has completed her first official production test in which she yielded 435.52 pounds of butterfat and 8,426 pounds of milk in 365 days. Blossom of H. F. was started on this test when she was six years and eleven months of age and with this record qualified for the Register of Merit. Her sire is Blossom's Torono, and her dam is Landseer's Blossom 3d. A. J. C. C.

Feed for Jerseys

I am writing in regard to feeding our Jersey cows, so as to get the greatest production at the minimum of cost, using the grain and roughage we produce on the farm.

We have silage, clover, clover and timothy mixed, also shredded corn fodder, but the fodder is not good as our corn was late and the early frost caught it before it was matured; it never dried out with all we could do to prevent it but heated more or less. We are feeding some of the best and using the balance for bedding. As for grain, we have corn, oats, a little buckwheat and cottonseed meal.

J. W. McIntire.

I would suggest the following grain mixture for your cows to be fed with as much silage, clover or mixed clover hay and shredded corn stover as the cows will eat up clean two or three times daily:

100 lbs. corn meal, or corn cob meal or ground buckwheat or portions of two or more, 100 lbs. ground oats, 100 lbs. buckwheat middlings, 100 lbs. cottonseed meal.

Feed your Jerseys one pound of grain mixture for approximately three pounds of milk.

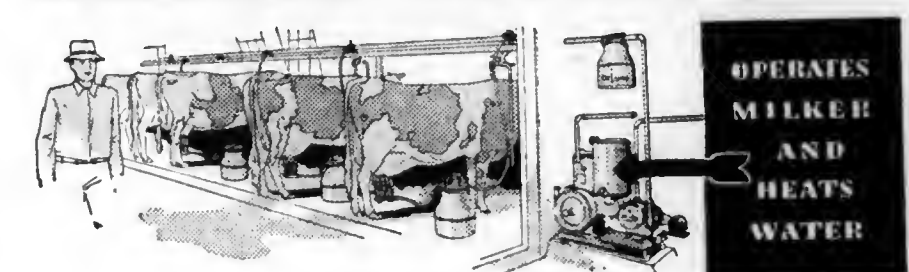
Strong Milk

I would like some information about a heifer which freshened her first time November, 1928. She was bred the second time and is dry to freshen in two months. The heifer gives about three quarts of milk a day, but the milk is strong.

THE strong milk produced by your cow is not uncommon in this season of the year when the cow has been fresh for a long period of time and is being fed on dry feeds. The cow has now been milking over a year and since you have no succulent feeds, as roots or silage, such a condition of the milk would not be unexpected.

This trouble is caused by an enzyme known as lipase which is responsible for a decomposition of the fat resulting in rancid odor. Reducing the grain ration and giving the cow two or three doses of Epsom salts at intervals of three days might result in removing the cause. The only certain method of preventing the development of the rancid condition in milk is to heat the milk to the boiling point promptly after milking and cool as rapidly as convenient to a low temperature.

... It's easy to produce
CLEAN MILK with



The DE LAVAL MAGNETIC MILKER and ALPHA DAIRY POWER PLANT

WITH a De Laval Magnetic Milker and an Alpha Dairy Power Plant it's EASY to produce clean milk. The milker prevents barn air or dirty hands from coming into contact with the milk, and the Alpha Dairy Power Plant, while providing economical power for operating the milker, also heats 4½ gallons of water, by circulating it through the engine cylinder jacket, for washing purposes—at no extra cost. This hot water is available immediately after milking, right where it is wanted.

By sucking first cold and then hot water through each unit after each milking, the De Laval can be kept sweet and clean at all times. A De Laval Milker can be cleaned effectively in just a few minutes. All parts which come in contact with milk are easily accessible for brushing when desired.

No milker can produce cleaner milk than a De Laval, and no milker can approach a De Laval Magnetic in perfection of milking, ease of operation and reliability. See your De Laval Agent or write for full information.

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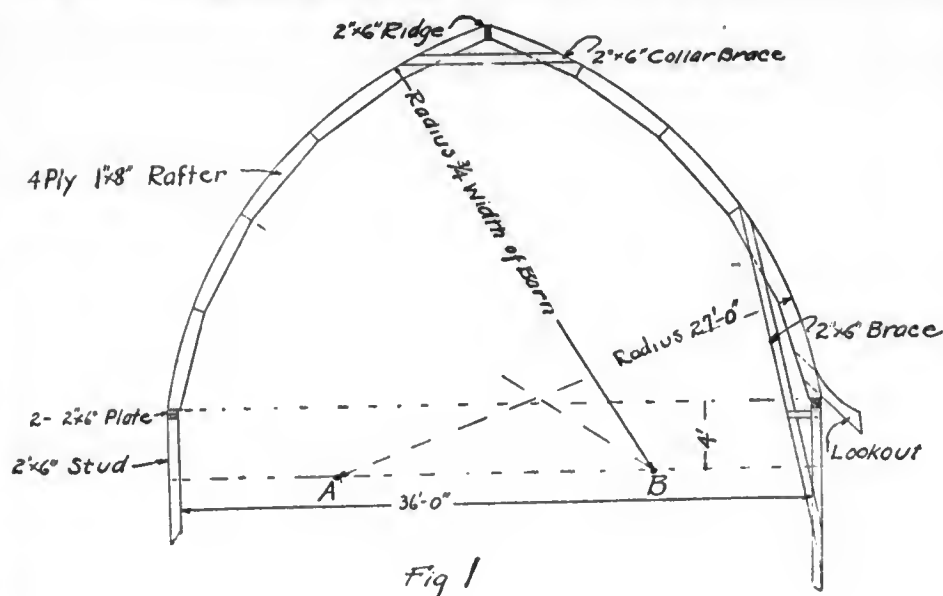


Fig 1

Barn Roof Design

By R. U. BLASINGAME

BETWEEN 800 and 1,000 barns are lost by fire in Pennsylvania every year. This information comes from the Fire Marshal's office at Harrisburg. I attended a conference held at Washington, D. C., November 14-15 last, devoted to "Spontaneous Heating and Ignition." Mr. Eaton, fire marshal of the province of Ontario, Canada, was there and he reports about the same number of barns destroyed by fire in his province as we suffer in Pennsylvania. Mr. Eaton is of the opinion that spontaneous ignition is responsible for a great many of these fires.

The Gothic Roof

Whether these fires are caused by spontaneous origin or not they are a great economic loss to Pennsylvania agriculture. And the barns must be replaced at considerable expense, possibly in the aggregate between five and six million dollars, to say nothing of the loss of hay, grain, livestock, machinery, etc.

The Gothic roof is coming into more frequent use, from all indications. The rafters are sometimes made of short lengths of 1 inch by 3 inch material three to four ply. The shorter the lengths the more pieces required to build up the rafters. However, less material is cut away in the short as compared to the long pieces. One of the well-known barn equipment manufacturers, who supplies plans at a very reasonable cost, recommends the use of two pieces of 1 inch by 8-inch material sawed or cut to shape, and a 1-inch by 4-inch piece on each side, placed so that no cutting is necessary. The rafters are placed 32 inches apart.

The usual method of laying out the Gothic roof is on a floor and arrange a form in which to build the rafters. Take three-fourths the width of the building, outside measure, and draw a line 3 to 4 feet below the line at the top of the plate. By reference to Fig. 1 "A" and "B" form the centers of part circles, which is the shape of the rafters. The arcs of the circle should be

drawn either with a piece of wire or two planks spliced together. A building cord will stretch too much for accurate work.

When the rafters are complete they may be lifted into place by a "gin" pole. After they are toe nailed onto the plate it is common practice to secure them to the studs by 2-inch by 6-inch pieces tied in by a stiff leg as shown at the right in Fig. 1. The collar brace near the "peak" of the roof gives strength and an anchor for the hay track. The eaves or lookouts are often formed by short pieces of 2-inch by 6-inch cut to a 5-foot radius to make an easy curve with the roof. The Gothic roof is well adapted to barn widths up to 40 feet. The radii of these rafters is 27 feet; three-fourths of 36 feet, which is the width used in this case, as shown in Fig. 1.

The Gambrel Roof

This roof is usually laid out by drawing a semi-circle (half circle) with half the width of the barn as a radius as shown in Fig. 2. The rafters are laid out on a floor and a form constructed in which they are built.

After the half circle is drawn (using a wire or plank which will not stretch) place the lower rafters so that they are full pitch or 60 degrees with the horizontal. The upper end should fall within the circle. In Fig. 2 a 14-foot piece, 2 inches by 6 inches, is employed. The upper rafter in this 36-foot barn is also 14 feet long and placed at 30 degrees with the horizontal. The peak of the roof should be slightly above the one-half circle.

The "lookout" at the left of Fig. 2 is usually placed 45 degrees with the face of the stud.

A collar brace at the top of the rafter and braces at the break in the roof, and another brace from the lower rafter to the studs, shown in Fig. 2, make this roof very strong. These roofs are usually sheathed solid with shiplap, before the covering is put on.

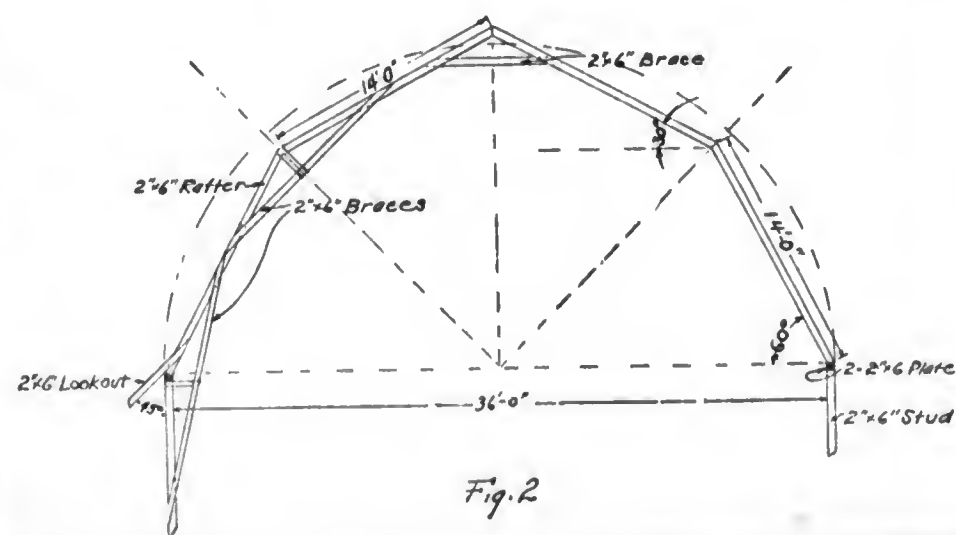


Fig 2



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An Outside Chimney

Would like to receive some information on how to build a chimney on a frame house (on the outside). How is it fastened to building and is flue tile necessary? We intend to use new brick. Thanking you. J. W. Smith.

CHIMNEYS built on the outside of the house never work as well as those built inside, so we are told by the manufacturers of house heating equipment, and also by architects. However, they are used a good deal. It is rather expensive to tear out sufficient space in a house to put in a chimney. And the appearance of a house is frequently enhanced by the lines of an outside chimney.

The reason outside chimneys are not as good as inside is due to the fact that they are exposed to cold weather and do not hold the heat as well as the inside chimneys. For this reason they do not have quite the draft of the inside flue. Sometimes outside flues are built 13 inches thick, that is the thickness is made up by the length of a brick or two layers of brick laid side by side. This is, of course, more expensive than when they are built one brick thick. The double thickness, however, seems to retain the heat better than the thin wall.

The chimney, I think, should by all means have a lining and can be attached to the house by bolts. The bolts can be made out of 1/2 or 3/4 inch round iron fastened into the wall of the house, preferably to the studding. The chimney should extend above the highest portion of the roof to prevent down drafts. R. U. B.

Five Year Old Battery

SEVERAL subscribers have written about putting acid or fresh electrolyte in farm lighting batteries four or five years old and which have a good deal of sediment and will not hold a charge very long.

Such batteries have about reached the limit of their useful life, as farm light batteries are ordinarily taken care of, and it is usually a waste of time and money to clean them out and put in fresh electrolyte unless they are overhauled and put in good shape otherwise.

If the battery has had good care, often several years more service may be secured by putting in new positive plates, new separators and new electrolyte. Many times the negative plates also may be in bad shape and new batteries may be the only solution.

The owner should have the batteries examined and tested by a competent battery man before doing any overhauling, otherwise it may all be wasted. I. W. D.

Excessive B-Battery Consumption

WE frequently hear about radio sets requiring excessive B-battery consumption, some of which are evidently due to excessive use of the radio.

A good heavy duty B-battery can be expected to last a five-tube set about three months, where the set is used from two to three hours per day. If the set has more tubes or is used more hours per day, the life of the B-battery will be correspondingly shortened.

Some of the most likely causes of excessive B-battery consumption are: Chatter absent or run down; too large a loud speaker or too close an adjustment of the working parts; weakened tubes, requiring them to be forced for volume; a power tube too large for the B-battery used; leakage in the B-battery circuit.

If sure you have excessive consumption, better have a service man check over the set. I. W. D.



SAVED from the stock-yards

THIS old cow is 14. She's been an extra good one in her day, but her milk record in her twelfth year clearly indicated that she was falling off. For she produced only 5415 pounds of milk, or \$69.53 profit above her keep.

The first months of the next year indicated that she was still slipping... that she was on the down grade... headed for the yards. Then, as an experiment, Dr. Hess Improved Stock Tonic was added to her ration. She picked up enough to produce 5592 pounds of milk, earning \$75.72 above the cost of her feed.

But the next year (her 14th), with Dr. Hess Improved Stock Tonic in her ration regularly, she produced 7971 pounds of milk* ... \$158.98 above her feed cost.

An old cow reclaimed! And the part that Dr. Hess Stock Tonic played in this particular case is only indicative of its value in young herds.

With all the necessary minerals, with its conditioning qualities to promote good health, Dr. Hess Improved Stock Tonic makes its big showing on the record sheets of cows in their prime.

Two cents per cow per day will add Dr. Hess Improved Stock Tonic to your dairy ration... dollars to your monthly milk check. See your local Dr. Hess dealer and get at least a 90-day supply to begin with. Figure 18 pounds for each cow.

DR. HESS & CLARK, INCORPORATED
Ashland, Ohio

Dr. Hess Improved Stock Tonic

A Conditioner and Mineral Supplement

*All milk sold as Grade "A" at \$3.50 per cwt.

HOW MUCH SUCTION IS REQUIRED TO MILK A COW?

NO two cows on your farm milk exactly alike. Some are fast milkers. Some milk slowly. Considering this fact should all your cows be milked with same amount of suction?

Judge from the sucking action of the baby calf. He varies the strength and speed of his suction according to the quantity and rapidity of the milk flow from the cow.

If a cow milks hard, the Perfection Automatic meets the situation by applying more suction—in shorter sucks. If she is an easy milker, the suction applied by the Perfection Automatic is reduced, but the sucks are longer. This automatic adjustment, which is governed by the milk flow of the cow, is an exclusive Perfection feature.

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We want you to see this DIFFERENT milker in actual operation in your barn on your own cows. Write for a personal demonstration.

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Make More Money for Poultry Raisers

Broilers in 8 Weeks! Layers in 4 to 5 Months!

Every day letters come pouring into my office from customers telling of the splendid results they have had with Jim Brown's Super Quality Baby Chicks purchased from me last year. They all speak of the wonderful vitality of my chicks and marvel at how quickly they developed into profitable broilers and early layers. 1½ to 2 lb. broilers at 8 weeks and pullets laying at 4 to 5 months of age are common occurrences.

Stock and quality tells every time and when you buy Jim Brown's Super Quality Chicks you get chicks from stock of rigidly culled flocks where only one breed is raised and where many of the roosters used for breeding purposes come from trapnested hens with egg records of 200 eggs per year and up.

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Postage Prepaid Wherever You Live
100% Live Delivery Guaranteed

| Variety or Breed | 25 Chicks | 50 Chicks | 100 Chicks | 500 Chicks | 1000 Chicks |
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| S. C. Brown Leghorns | 3.75 | 6.50 | 12.00 | 57.50 | 110.00 |
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| Mottled Anconas | 4.25 | 7.50 | 14.00 | 67.50 | 130.00 |
| White Rocks | 4.50 | 8.00 | 15.00 | 72.50 | 140.00 |
| Buff Orpingtons | 4.50 | 8.00 | 15.00 | 72.50 | 140.00 |
| White Wyandottes | 4.75 | 8.50 | 16.00 | 77.50 | 150.00 |
| S. C. Black Minorcas | 4.75 | 8.50 | 16.00 | 77.50 | 150.00 |
| White Rhode Islands | 4.75 | 8.50 | 16.00 | 77.50 | 150.00 |
| Buff Rocks | 4.75 | 8.50 | 16.00 | 77.50 | 150.00 |
| Silver Laced Wyandottes | 3.75 | 6.50 | 12.00 | 62.50 | 125.00 |
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Send No Money — I Ship Chicks C. O. D.

be sure of having your chicks when you want them.
The demand for my Super Quality Chicks is more than DOUBLE that of last year, so get your orders in now, giving date you want them delivered. My prices are lower—I guarantee the quality—I guarantee 100% live delivery—I pay the Postage and ship them C. O. D. Nothing to pay until chicks arrive.—Jim Brown.

Here's Proof of Super Quality

"The 500 R. I. Single Comb birds sent me last March are the longest birds I have ever seen. They are a very beautiful dark red and fat. A poultry expert from Massachusetts Agricultural College declared them the finest birds in this section of state. These birds started laying August 10th. They started off with a bang and never stopped—within 2 weeks were laying 100%—at this writing 75%." — Mrs. Carrie G. White, East Tanton, Mass.

"In April, 1929, I received from you, 100 English Leghorns, 88 Barred Rocks. There were eighty-four pullets in all. The first of these laid when I received 601 eggs, in October 1929; in November 1215 and in December 1012." — William Lumbe, Methuen, Mass.

"Last March and April I bought 400 Special mating heavy laying strain R. I. Reds from a hatchery in..... May 3rd I bought 200 Jim Brown's Barred Rocks intending to sell most of them for broilers but kept some and today your birds are outlaying any I've got. They are laying about 60% (Jan. 15th) which is certainly fine." — Mrs. Leroy Brown, Peekskill, N. Y.

Notes I have hundreds of letters like these.—Jim Brown

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Here is my order for some of your Super Quality Baby Chicks. Send them C. O. D. I will pay for them when delivered.

| Quantity | Variety | Price |
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Jim Brown's New COPPER Steel Fencing

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My New Copper Steel Wire Fencing is the greatest improvement in fence making in 50 years. Lasts Twice as long as ordinary Fence. Saves Half your fence money!

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PENNSYLVANIA FARMER

Published Weekly

Established 1877

Consolidated with PENNSYLVANIA STOCKMAN and FARMER

February 15, 1930

The General Purpose Tractor

Philadelphia Pittsburgh Harrisburg

Farm Facts and Fancies

By ALVA AGEE

CALIFORNIA alone produced over nine thousand acres of carrots last year, receiving nearly three millions of dollars for the crop. The burden of consuming all these carrots would not be serious if every person ate his share and did not leave an undue portion upon those who try to do their duty in the matter. Somebody is shirking.

Setting a Price Too High

In the interest of clear thinking I should like to know what is meant by fixing a price for a farm product that will increase the producers' immediate net income without stimulating production.

We are told that if the present effort to control prices succeeds it is important that the farmers do not demand a price level that will induce added production and the creation of a surplus that will undermine the situation. For years we have been facing the fact that a low level of prices was attended by overproduction. Any prospect of better prices leads to expansion of plans for production. The great copper interests are restricting production so that the price per pound may be held around 18 cents. The oil interests are less successful in control, but they are trying to find means of limiting supply.

Any price for a farm product that is lower than the present one certainly is not wanted, and one that is higher necessarily spurs production until means of control are found. Are we not trying out a car without any brakes?

Large-Scale Farming

Dr. Frank App, who is in charge of fruit and vegetable production on a very large scale in southern New Jersey, writes that in his experience "large scale operation is enjoying very many advantages not obtainable by small producers." He has found this to be true in the case of tree fruits, but had been in doubt about vegetables until last year. He says: "A production of vegetables can be so arranged as to furnish far superior control features so that they can be planted, cultivated, watered and insects controlled at the proper time so as to obtain better than average production at less than average cost."

Dr. App and Mr. Henry Jeffers of the Walker-Gordon Company have wondered at my long-standing doubt of any true economic drift in this country from ordinary farming into big corporation farming. They assume that plenty of others could show as much skill in management as they show.

Sometimes I think that the wonderful advance in application of power to food production may bring more extension of corporation farming than I had foreseen, but the fact remains that most farming land is owned by people who want to boss their own efforts in life, and they will put up with what they make, be that much or little, and their products will continue to fill the markets regardless of any showing of balance sheets.

I like the winning that my friends are making in corporation farming, but especially like the grip on the land that the relatively small farmer has, and I think he will keep it.

Group Political Action

A Washington county, Pa., subscriber, feeling the unfairness of taxing methods and the burden of freight charges, writes: "If the farmers would be willing to get together and drop politics, put up a good man on a people's ticket, or some ticket outside of the two major parties, it may be we could get somewhere." He wonders whether all the land owners of the state might be brought to com-

bine and finance a movement to influence elections and legislation on behalf of agriculture.

I do not like to say disagreeing things, but such plans do not go out. Farmers would not do the bining or the financing, if judged by past experiences. Our friend must realize that there are too badly outnumbered state to let group action be effective. If we could stretch our imagination sufficiently to see them act as one group, they would be before they started.

No, we are committed in the try to party control, and the effective way of influencing within these parties. This is definite one, and the headway any group of citizens has its interest has been through ent pressure upon the leaders dominant parties.

Eastern Farmers' Competition

Our friend would have the movement reduce railway freight to everything pertaining to agriculture to two-thirds of the present and believes that would benefit farmers. Now, the fact is the eastern farmers' chief protection is the cost to the western of getting his products into natural markets of the easterner. Land is less fertile in the states, and cost of tillage is higher and it is only remoteness from markets that keeps the western making conditions harder for eastern man.

Crowd the fruit districts Northwest, the potato districts Idaho and the upper Mississippi valley, the poultry and dairy sections all that region, along with the rest of the South, up against eastern markets and there is trouble enough for the easterner. Distance is the only barrier roads have increased their charges and thereby brought the West east.

As to Rates

Now, let us understand what I know nothing in particular the fairness of freight rates. I am glad enough the government closes a good deal more night of rates than railroads like. My guess that increasing efficiency of transportation will tend all to lower rates, but I do not see the closer the West is to eastern markets by lessening putting its products into the consumers, the tighter market becomes for the eastern producer.

If the railroads make a turn on the investment, but a right to a reduction, but it is something demanded by eastern agriculture. The bringing the fertile land of the hillsides of the eastern states to the hillsides of the West.

My own reckoning would the freight rates on the products from eastern farms to eastern markets are too high in comparison to the rates paid for long hauls in this country, and right here we may be most needed.

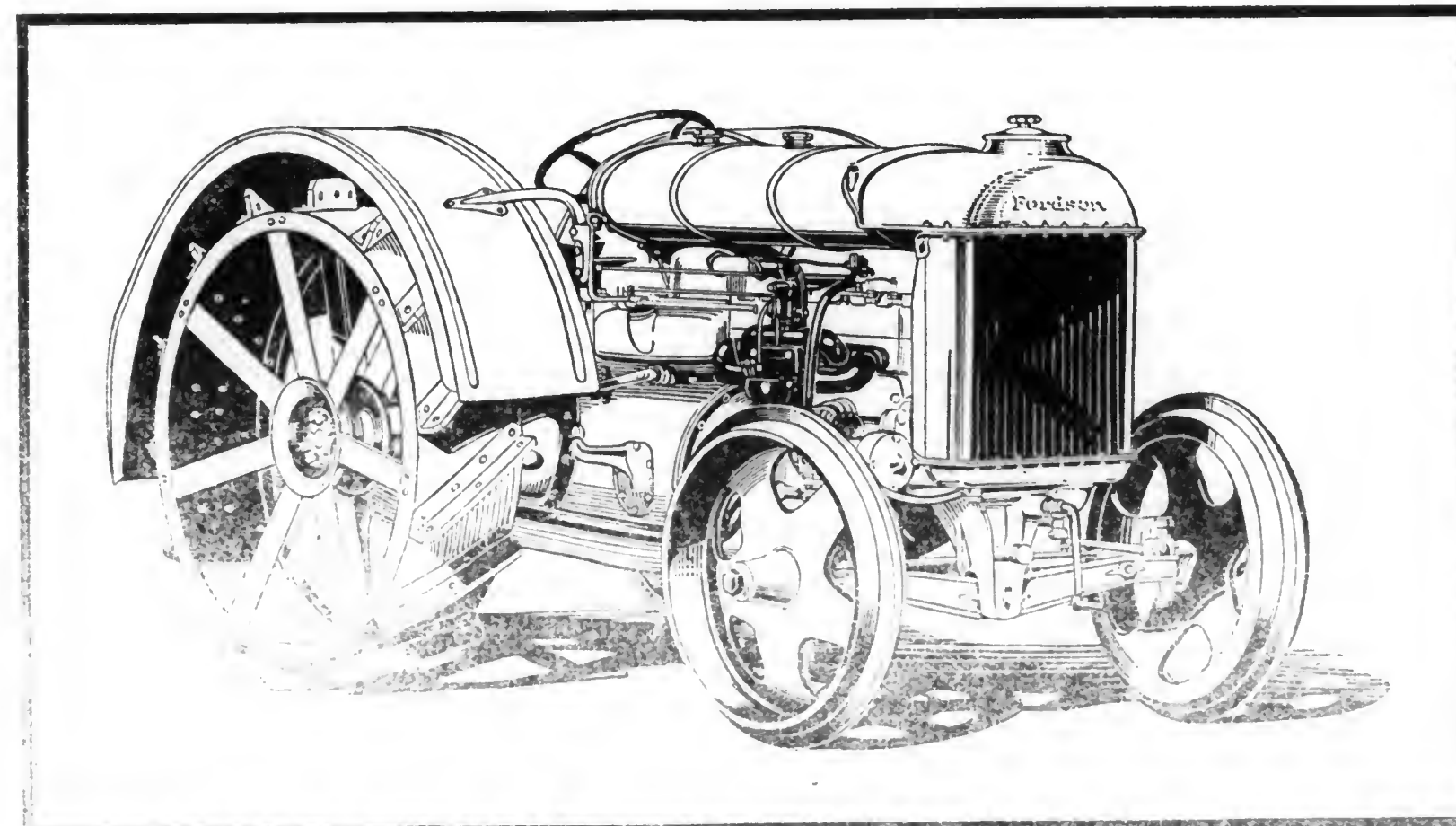
The Same Line

I AM more than thankful to D. Zinn for his good writing, especially Chapter 3 of the "Farm Story." I hope that this good. All superintendents, teachers and patrons ought to put up and put this method to or at least a good part of the payers may be getting a portion of our money back.

I came up along the same line as Mr. Zinn almost. W. Va.

For farm work *this* Spring...

for economical service through *many* seasons



THE FORDSON AGRICULTURAL TRACTOR

THE FORDSON—whose reputation is established—is now available through a local dealer... available embodying the following distinctively modern tractor features.

An engine that develops 30 horse-power at one thousand revolutions per minute. High-tension magneto with enclosed starter coupling to insure easy starting. Hot-spot manifold and carburetor for gasoline. Cooling system with water pump driven by a V-type fan belt. An air washer that holds 17 quarts of water.

Other features include a filter to separate grit and carbon from the oil in the lubrication system. Transmission fitted with large roller bearings. Large gear has double bearing mounting.

Sixteen-plate, multiple-disc transmission brake with increased plate surface. Rear-wheel bearing lubricated automatically. Gears that shift easily from increased release movement.

Coil-type front spring. Heavier rear-wheel fenders and platform. Heavy, sheet-metal steering wheel. Heavier, stronger, one-piece front wheels. Still other features optional at extra cost are: a fly-ball governor, pulley, lighting system powered by a generator driven from the fan belt, extra long cleats for rear wheels, and extension rims.

All these features together with reliability, economy and long life. A local dealer will demonstrate its farm advantages to you.

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PARTNER! That word well describes Cletrac's scope of service on the farm. Powerful, dependable, Cletrac is ready always to shoulder the heaviest jobs on your farm and get them done on time.

Straight through the year—on every operation from plowing to harvesting—a Cletrac Crawler Tractor will bring to your work a new speed and a new efficiency unmatched by any other type of tractor. Its full delivery of rated horse power at the draw bar means abundant power for your toughest jobs. Broad crawler tracks assure positive traction over soft soil and up steep grades. Exceptional economy in fuel and oil consumption sets an entirely new standard for low operating costs.

Find Out About Cletrac for Your Farm

You can profit—as thousands of other farmers have profited—from a partnership with Cletrac. Get the facts about these better tractors today. New folders—just off the press—will be mailed on request.



Cletrac Crawler Tractors are built in a complete line of models from 12 h. p. to 100 h. p. and priced as low as \$1095 F. O. B. factory.

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Certified Seed Potatoes

QUEEN MICHIGAN RUSSETS—PRINCE EDWARD ISLAND COMBLES AND MOUNTAIN NEW YORK RUSSETS AND RURALES—Largest seed stock in the world. Let us quote you on your requirements. Seed potatoes and other farm seeds.

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ROHRER'S SURE PAY SEEDS

Quality is always Inexpensive

Let our seeds prove their economy in better crops and greater profits. Rohrer's SURE-PAY seeds, carefully selected and rigidly tested for purity, vigor and high germination, will bring you finer results than you ever thought possible. Our FREE Samples will prove their superiority. Write for a set—now.

Remember: No charge for bags and we pay the freight.

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| Alfalfa | Timothy | Seed Potatoes |
| Clovers | Seed Oats | Field Peas |
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This 1930 Seed Book will show you the way to finer crops and greater profits. Write for your FREE copy.

P. L. ROHRER & BRO.
Box 2, Smoketown, Lanc. Co., Pa.

End SMUT Losses on Your Oats Crop with Ceresan

Dust Treatment
Harmless to Seed
Improves Quality
Increases Yields



Smut inflicts tremendous losses on oats yields each year. Recent field counts show that damage to a fifth of the crop is not unusual. Losses are frequently even more severe. In 1928, Iowa farmers lost 18,000,000 bushels of oats because of smut. In 1929, according to state and federal authorities, oats smut caused more than normal damage in Kansas, Iowa, Minnesota, Missouri and Wisconsin.

Seed oats are generally subject to smut. Even the best seed can be contaminated by smut spores from bins or sacks. But you can control smut and end yield losses by taking one precaution before you plant. Treat your seed oats the safe, effective way with Du Bay Ceresan.

Ceresan Harmless to Germination

When liquid formaldehyde treatment is used for seed oats, considerably more seed per acre usually must be sown because of injury to germination. In addition, other injury may occur by freezing, heating or sprouting. The new Ceresan dust treatment puts an end to such risks. It is deadly to both loose and covered smut spores, but harmless to seed oats.

Excellent Control of Smut

In Wisconsin, Ceresan has given very good control of oats smuts as reported by Circular 133. According to the *Plant Disease Reporter* for August 1929, dust treatment with Ceresan gave "good control" of oats smut in Iowa; and in Kansas, Ceresan dust treatments gave "excellent control" of oats smuts.



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REG. U. S. PAT. OFF.

Dust Disinfectant for Seed Grains and Cotton

BAYER-SEMESEAN CO., Inc., 105 Hudson St., New York, N. Y.
Please send FREE Ceresan pamphlet. (O.G. 25)

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SEMESEAN JR. SEMESEAN for SEMESEAN BEL
for Seed Corn Flowers and Vegetables for Seed Potatoes

AT YOUR SERVICE is the attitude of every advertiser in this paper. Write them about your needs. Mention Pennsylvania Farmer.



By R. P. KESTER

INTEREST in the use of mulching paper is developing slowly. My request for the experience of users brought several responses, most of which told of success and profit. On the other side, I have a letter from one who signs himself "Brother C—," a farmer at a monastery, who did not find it profitable. There is one fact in his report which may explain why he did not have as good results as others, and that is he used overhead irrigation. Without question, one of the chief values of mulch paper is its power to hold moisture in the soil. If sufficient moisture is added by irrigation this aid of the paper is negated. His letter, in part, follows:

"Last year I was a gardener in Maryland. I tried out three rolls of mulching paper, two 18-inch rolls and one 36-inch roll. I used it on beets, radishes, lettuce, carrots and cauliflower. Also on cabbage and tomatoes. I pegged it down at first with wire staples, but a storm soon came and the paper flew around like ribbons. Then I drew furrows with a hand cultivator, put the edges of the paper in them and pulled the dirt back on it. After that I had no trouble with the paper blowing off. I always planted test rows along side of mulch paper to see the difference. The whole was irrigated by an overhead system. In no case could I see any difference. Long before the crops were all harvested the paper was badly rotted. I agree with you that the whole question must be decided on whether or not the returns from mulching will show a profit."—B. C.

I want to explain and apologize to some of my friends who, instead of receiving a personal letter, receive a printed reply. While I regret this, it seems necessary in some lines of inquiry because of the great number of inquiries on the same subjects.

Here is part of another letter that has a very interesting tone: After asking some personal advice she continues:

"We, (Sonny Boy, aged 16, and myself) are in the market garden business and do not want to risk any money on an uncertain enterprise. In addition to a garden tractor, we have been thinking also that a garden seedling drill with a fertilizer attachment would be a good thing. Would you endorse this kind of an implement? If so, where can one be purchased? We have seven acres of land, and till about four.

"We find ready market for peas, early potatoes, beans, Lima beans, corn, carrots and everything but cabbage. We can sell a limited amount of cabbage, and we have good soil for it, but where to get a market for it, I stumps us. The Pennsylvania Farmer states that more cabbage is shipped into the state than is grown here. Why, then, can we not sell it? We could raise only an acre, although there are 20 acres we could purchase if we want it, and we would if we could sell the produce.

"Another thing that puzzles us is plants. To buy them costs so much at present. We are considering a small greenhouse, and hope to get it going by another year. We will have no trouble in selling all the plants we can raise.

"Sonny Boy would like to have a large farm, with tractor and all modern equipment, and I hope we can have it some day if the present slump passes. By careful management we can make a nice sum of money here."—Mrs. E. B. Chester county.

I can imagine the helpful sympathy of this mother as she plans work of this little farm with her son. And I can see the feeling of partnership that exists in Sonny Boy's heart as he discusses plans and prospects with her. This is as it should be. I am sure that many families would have been kept intact if parents had made confidants and partners of their sons and daughters.

There is a good market for cabbage in most industrial towns, or at least that used to be the case. I am well aware that the eating habits of all classes have changed greatly in the last 10 years. Even the laboring classes are inclined to more the cheapest and most filling foods, things they used to buy largely in the interest of economy.

This mother and son are wise planning to hold on to and make the best of their present farm for the time being. The possibilities of a few acres are almost limitless. I doubt it is advisable to hunt for a garden seed planter having a fertilizer distributor. The distribution of fertilizer for narrow row crops should be the broadcast method and it should be thoroughly worked into the soil before the seed is planted. This may be done by sowing by hand, or the use of one of the several distributors of the wheelbarrow type.

Friendly Talks

By Edgar L. Vincent

NOTHING helps a man to do a high more than to feel that he is doing something for somebody else. The world expects something of every man who is born into it.

"What! Expects something of me? My farm is a hill place, away from the main roads. A good part of the year we are shut in by snow drifts and bad roads. What can I do for the world? It is all I can do to take care of myself."

And yet, it is true that the world has claims on every last hill-farmer, every farmer everywhere; and nothing takes the hope and the glow out of a man faster than to get the idea that nothing is expected of him. We are not doing ourselves justice either, when we take this view of life. Anything that makes a man think less of himself than he ought to think in just that degree paralyzes his efforts to be a good farmer.

True, it may not be much we can do over and above the average, but we can do something. I know a back-country farmer that greatly increased his crop of corn, just by picking out the ears that grew two on a stalk and using them for seed. In a few years he had a strain of corn that had many stalks with two ears on them. Say anything to that about this and he will tell you that "it is nothing. All in the day's work."

And yet it is something. By increasing his corn crop he did the world a good turn. His neighbors wanted some of his corn for seed, so the good work spread and nobody knows just where such a thing will end.

Every good crop we grow, every stump we pull, every good furrow we turn, every kind thought we have, every good word we speak by just so much helps to make the world better, and hill farms and back roads have nothing to do with it.

More Readers on Farms in Pennsylvania than Any Other Farm Paper

PENNSYLVANIA FARMER

Published Weekly

Established 1877

Consolidated with
PENNSYLVANIA STOCKMAN and FARMER

PUBLISHED EVERY SATURDAY BY

CAPPER-HARMAN-SLOCUM, Inc., 7301 PENN AVENUE, PITTSBURGH, PENNSYLVANIA

Pittsburgh, Pa., February 15, 1930

No. 7

Spring Hill Puts Ill-Fortune to Work

By W. R. GORDON

was nearing midnight as the last group struggled with a sputtering car and finally got under way across the hills toward home. Every one had so much fun that night. This was the first of the annual "warm-sugar" social. What big spoonfuls of creamy maple sugar, cakes and coffee, who would ask for more? The youngsters had demonstrated the making of "snow" by pouring hot sirup in a thin stream back forth over plates of snow. If there is anything to the theory that sugar is an energy-producing food enough energy was stored up that night for a long time. It was going to be needed. There had been games and music and a few of the best had cut some of their original capers.

It was the mood of the night. Could some one have looked ahead six hours and seen what would have been no more than a hill of mirth. How ill-fortune is ushered in by laughter.

The last family group to have reached the foot of the hill and were entering the lane that leads to the house when one of the boys exclaimed, "Oh, look!" A ominous red glow was coming up into the sky. It did mean but one thing.

From there, it might be said, the school, the church, the Grange hall. Although the school could be seen, they hurried back.

In an ably short time almost every one in the neighborhood stood about the burning heap of timbers. It had been their Grange hall. The flames died down some hopes died too. Things had been planned for that year; arrangements to be made in the hall itself. A new roof had been stored in the basement. A new electric light plant had just been installed. The date had been set for a community gathering when some playground equipment was to have been built on the school grounds.

Disraeli who said? "I never admit failure. It's whether he did or didn't, it's a helpful philosophy. Though hard to accept at the time, we can all recall some act of misfortune, adversity that stirred us to greater effort, to sacrifice than we ever thought we were capable of. Spring Hill had met ill-fortune before. They were plucky then. They would be equal to this. This was the spirit that prevailed at a time called to consider what might be done.

A woman took the lead. She declared there would be another hall, a bigger and finer one than the one that had been destroyed. Her words did one over could have been. Her words did one that needed spark of enthusiasm. One another echoed her confidence. It was agreed. They would build another hall. Right away! The plan once started gained momentum faster than the most optimistic had hoped.

They had the pleasure of witnessing the laying of the cornerstone of the new hall on the following Fourth of July, just a little over two months after the fire. They opened their new building for a reception on the 22nd of October. In less than a year Spring Hill had a new community building and born with it a new spirit and a new enthusiasm.

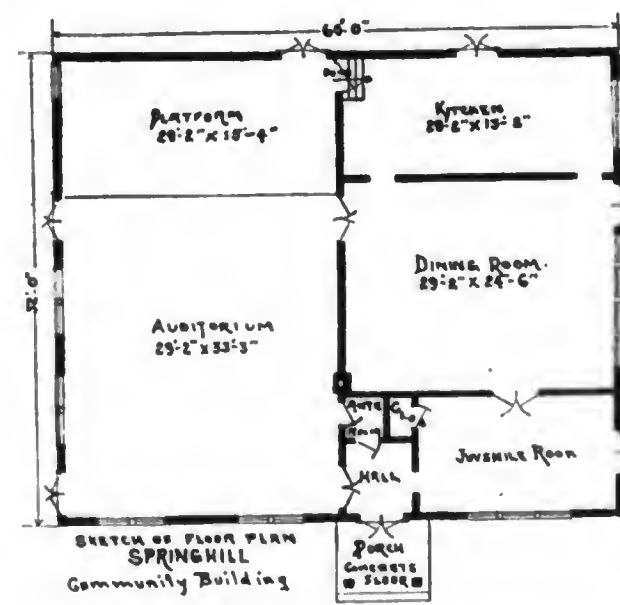
This day of bland materialism, a day of over-emphasis on the importance of things and activities, we are frequently confronted with the bald

fact that there are differences in rural life that can't be explained by differences in type of soil, variation in type of agriculture or disparity in net farm incomes. It isn't all physical after all. It isn't all economic. The explanation will often be found in the differences in the people themselves.

A rather prominent man, who should have known the facts, once hurled this question at me in a meeting: "Isn't it true after all that if farmers concern themselves with making a bigger income all these other things in country life will come as a matter of course?" My reply was, and is, "No! Emphatically no!" And there is a wealth



The Spring Hill Grange Community Hall.



Plan of the Building

of illustration to prove that the point of view so expressed is not valid. Some things, some satisfaction will come easier with an increased income. Others may be had without it. Many in country life will have to come without it.

This little community in Bradford county, Pa., is one illustration of what people can and will do, will work for, will determine to have when they possess a sound appreciation of value, even though their income remains the same. Woven into the community's fabric is some fine Yankee stock. There are farms that have been in the same family name for three generations. There are newcomers who have married into these old families and who too have brought their traditions and worthy ideals. Many of those who have gone to live other places retain a loyalty to the home of their childhood.

hood. This is witnessed in the record of contributions to erect this new building. "Folks is funny that way. Some is and some jest aint," an old Negro woman down home used to say. But let's get back to our knittin'.

The building is a one-story structure. In this respect it is ideal for a community hall. Any kind of entertainment may be put on and there is little hazard in case of fire. Plenty of exits right out onto the ground level. The construction is frame with a stucco finish. The dimensions over all are 52 by 60 feet. You will notice by the accompanying sketch how compact it is, how well planned for the many uses of the community.

The auditorium is nicely proportioned and provides a large platform at one end. Note the depth of the platform, 15 feet 4 inches. You can put on an entertainment on a platform like that. And it is high enough, 26 inches. The kitchen is handy for property and dressing room during the performance. The partition between the kitchen and dining room is built with a large opening and counter so all servings are passed out over it. This saves time, confusion and labor whether the service is at tables or cafeteria style.

Then the partition between the auditorium and the dining room is a good feature. It consists of folding doors. When pushed back considerable space for seating becomes available in the dining room.

The youngsters make good use of their room. Here they have programs while the grown-ups attend their own meetings. On Sabbath it is used for one of the several Sunday school classes that meet there. In case a small group, a committee, wishes to meet at the hall this room can be quickly and economically freed.

That arrangement of a front hall is good too. You have access to the auditorium, juvenile room and ante-room. All rooms have double-door exits to the outdoors. The auditorium has three. All outside doors are fitted with panic bolts. Here is a building worth \$12,000 erected with an outlay of a little less than \$7,500, including the furnishing.

Does the community use it? Judge for your self. Some of the folks got curious the other evening and counted up 214 occasions during the past year when some group had used it. Here's something else that is an index to the spirit in Spring Hill. They had a key to the front door when the building was completed, but they don't know where it is now. The building has not been locked since it was dedicated. Any group may go in and hold a meeting. The rule of the western woods prevails: "Leave your camp clean and firewood for the next traveler."

The building was located so it might be a true community center. The school is within a hundred yards. The church joins it on the other side. They use it on Sabbath for Sunday School. Eight classes meet there. Incidentally the attendance has doubled and Spring Hill now has the largest rural Sunday school in the county. There is a Men's Fellowship Society with thirty members that meets once a month. The Ladies' Aid and Missionary Society use it. The school comes there for its social gatherings and entertainments. A local Boy Scout troop also meets there. This structure erected by the community, owned by the community, sup— (Continued on page 42.)

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MOVING TIME

WITHIN a few weeks many subscribers will change their place of residence. We will appreciate it if they will notify us promptly, being sure to give the old address as well as the new. For it is impossible to make the necessary changes in our mailing list without knowing both addresses.

SHEEP AND WOOL GROWERS

THIS year it is West Virginia's turn to hold the annual meeting of the Tri-State Sheep and Wool Growers' Association. The meeting will be held at Moundsville, March 20-21, and with it the usual exhibits of wool and its products. This old organization has done a lot of good work in the past and appears to be as vigorous as ever.

ANOTHER MURDER

THE Drovers' Journal of Chicago states that Carl Brunne, a farm worker of Washington county, Ill., died in the hospital last week of injuries inflicted by a bull. We have no particulars in this case but venture to guess that the killer had been considered a gentle animal up to the time of the attack. At least that is true nine times out of ten.

A TAXLESS TOWN

THE Department of Forests and Waters says that the village of Ebern, Germany, collects no taxes and every year gives each household a load of firewood and sixty marks in cash. "This revenue represents the profits of community forests owned by the town and so well managed that they more than pay the community expense." Most of us would be satisfied if something paid the taxes. How would it feel to be a resident of Ebern?

TWO GREAT INVESTMENTS

IN 1900 the Commonwealth of Pennsylvania secured title to its first public forest lands, a little over 77,000 acres. Now the state forest lands amount to 1,200,000 acres of which 1,200,538 acres was purchased at an average price of \$2.37 per acre. The policy of purchase continues and should prevail until the available area of such land is unimportant. This is the best investment the State has ever made, with one exception—its investment in education.

A TRAIN LOAD

OUR special train to Florida and Cuba, February 18-28, is full and no more reservations can be accepted unless somebody is compelled to cancel. This trainload of farm folks was assembled through the information given in this paper, without mail or personal

solicitation. They are all volunteers, and we hope they have an enjoyable as well as a profitable vacation.

ROBERT J. EVANS

OUR old and genial friend Robert J. Evans, for many years Secretary of the American Duroc-Jersey Record Association, Chicago, died suddenly at his desk on Thursday, February 6. He was 65 years of age, and was one of the few swine breed record officials to hold office through the difficult period following the collapse of 1920. He had many friends in this region and deserved them.

FROM LIFE

WHEN wool declined after the Civil War a certain farmer vowed that he would sell no more until he got a certain high figure. The years went by and the market never got up to his price. Finally he died, leaving nearly fifty clips for his executor to sell. A rash vow, involving nobody but the man who makes it, might be "better honored in the breach than in the observance."

WHICH WAY?

AN old friend says, "What you write about changes in business is true, but are such changes for the better? We used to get some money out of horses in this county, but how is it now?" Probably this change is for the better when all things are considered. At least the point is debatable. It is still possible to get some money out of heavy horses in that county but not out of the kind mainly raised there years ago. Most of the time since the horse business went down a two-year-old steer, a young cow or the equivalent of either in ewes would have brought in as much cash as the horse of other days did at the same age. And this probably with no greater investment of cash, labor or skill and no greater risk of loss by injury or disease. Hogs are not mentioned because this friend lives in a grazing country. Are we right or wrong about it?

IN WEST VIRGINIA

WEST VIRGINIA'S Farm and Home Week, at the University at Morgantown February 3-7, brought forth the largest crowd in the history of the event. The annual exhibit of farm products and home crafts were better than last year, and a state flower show and a home cream demonstration were scheduled for the first time. Facilities for the event are inadequate. Larger lecture halls will be needed if the audiences continue to grow, and a livestock pavilion is an absolute necessity, not only for this week but for regular instruction of students. Livestock judging contests and demonstrations had to be held in the mud and in whatever weather nature provided. For the first time West Virginia has Master Farmers, three outstanding farmers being thus honored on the same platform as the Master Homemakers. The College of Agriculture's equipment continues to improve and its service to expand, meriting the growing respect and support of the public.

West Virginia farmers are interested primarily in production and largely in the production of grazing animals, though fruit, poultry and dairying are important industries. Classes in all of these subjects were large. Interest in community improvement, with all that implies, continues to grow. Taxation is a vital issue and the fact that it comes up for discussion in nearly every group of farmers is significant. Cooperation continues to progress, but it is marked by conservatism rather than by rashness. On the whole the agriculture of the state reveals progress, and it is more than merely material progress.

THE CANADIAN POOL

THE Canadian wheat pool is cited as a conspicuous example of success in cooperative grain marketing. We always held that no such organization could be called a commercial success until it withstood the test of time with its conditions, emergencies and adversities. comes Dr. James E. Boyle, economist at the pool, with the assertion that the Canadian pool is not entitled to be called a success should still be classed as an experiment. shows that the pool has not marketed more economically than under the competitive system; that it has failed to stabilize flow of wheat to market; that it has to stabilize the price; that it has failed to advance the price; that it has not carried out orderly marketing but is now engaged in gigantic speculation, holding many millions of bushels of the 1928 and 1929 crops at higher price. He does not attempt to tell how this speculation will end but "The pool, by withholding wheat worth hundreds of millions of dollars, has seriously ranged the whole credit structure of Canada; has brought the country more to a critical position; and has deepened Canadian exchange in the United States at least two per cent. After all the kiting of wheat through the regular commercial channels was more orderly than the present experiment." A few months will show how this speculation will end us watch and learn.

AN UNSTABILIZING ELEMENT

WHEN the Agricultural Marketing was under discussion we claimed the Federal Farm Board could not be a stabilizing agency for the reason that no market can be stabilized by the acts of the Board rather than the words of its members; but the New York Journal of Commerce, in commenting on the "unauthorized loquacity" of Board's cotton representative, says: "Apparently the members of the Farm Board make no attempt to confine their statements to matters on which they all agree or to lines of policies that they expect to carry out. On the contrary the members not only agree among themselves as to what they will do but they contradict one another in their public utterances, thereby creating a confusion of counsel that has made the Farm Board to date just an uninteresting element in a highly unstable pricing situation." If mere word-confusion is an unstabilizing element what may we expect of the

STABILIZATION CORPORATION

IT is no secret that sundry members of the House of Congress have contemplated the Federal Farm Board because it had no stabilizing power for grain and cotton. The pool is ready to deal with such questions at the present time. This meeting was a continuation of the "question box" meeting held at the National Agricultural Week to further discuss power farming, fertilizers, seed, spraying, soil erosion, grading and other things of importance to the potato industry. About 200 growers were present. Power farming brought forth many questions and several growers related their experiences during the past year with the use of tractors in planting, cultivating and harvesting their crop. Two of these growers, with 2000-acre farms, mounted on a platform and reported that the results obtained with the new methods were very satisfactory. A discussion of spraying led by Doctor Martin was interesting to note the large amount of potato growers in the state who had not sprayed during the past years. Extensive data as well as experiences of other growers brought out rather definitely that increased yields in New Jersey due to systematic spraying average about 60 bushels per acre. In answer to a question of the spray pressure necessary to obtain satisfactory results, Doctor Martin said that a series of tests on the farm of Alfred Sloan, a pressure of 250 pounds gave as satisfactory results as higher pressures.

New Jersey Farm Comment

By G. W. HARRIS

The growers favored the potato grading agreement which was in effect during the past year through the efforts of the Farm Bureau Federation, growers and dealers, and asked that it be changed in certain sections, to be more effective. A new agreement has been drawn up and as yet has not been signed. This agreement was presented to the growers by H. E. Taylor, secretary of the Federation of County Boards of Agriculture, for their reaction and will be presented to other groups at later meetings.

The meeting adjourned, not because all questions had been answered, but because of a lack of time for further discussion.

A REPORT of the dairy extension department at the College of Agriculture shows the amount of milk required to pay the board of cows.



The following is quoted in showing the relation between production and the quantity of milk required to pay a cow's feed bill.

"Does the milk consumer realize that of the 2,697 quarts of milk coming from our cow of average production, 1,400 quarts must be used to pay the cow's feed expenses? Do the majority of producers fully appreciate the big handicap under which the cow of 5,800 pounds capacity or less is working? From the 40-quart can that is filled by 5,800-pound cows the owner must take out the returns of 20.7 quarts to pay for the feed required to make that can of milk. From the 40-quart can that is filled by the 12,000-pound cows the owner needs to take out 13.3 quarts for feed costs."

ORA BUSSARD a Washington county, Maryland, 4-H Club girl, was recently awarded the 1929 scholarship offered by the Baltimore and Ohio Railroad for outstanding club work in that state during 1929.

Her scholarship and leaving have been the first of the 4-H Club girls in Maryland. For her scholarship she has made the greatest part of her time during the last season spent at and as a representative of the Washington County Federation, has trained demonstration teams, has been a winner in judging contests, has been a Maryland delegate to Camp Vail, and is one of the two girls who edit her county 4-H Club News Bulletin.

Two scholarships are made available by the railroad each year for 4-H Club members living in counties traversed by the company's lines, who have made outstanding accomplishments. The other scholarship has not yet been announced.

THE 4-H Club boys from New Jersey who entered the national 4-H Club poultry judging contest at the Madison Square Garden Poultry Show in New York City on January 18 returned with their share of honors.

James Pettit, R. Lawther, William Eppert and Walter Girilin made up the team. Seven other teams were entered from Delaware, Massachusetts, Pennsylvania, New York, Maryland, Connecticut and Virginia.

The New Jersey boys placed first in judging exhibition classes and White Wyandottes. James Pettit won the silver cup given by the Maryland Poultry Association for the highest scoring individual outside the New England states and the medal given by the American Poultry Association for second high individual in judging exhibition classes.

The Delaware team, made up of Frank A. Elliott, Medford Hatfield and Marvin W. Klair, was nosed out of first place and the sweepstakes cup by the Massachusetts boys. They carried home the silver cup given by the Virginia Poultry Association for the high team outside the New England states. Marvin W. Klair placed third for individual honors in judging exhibition classes.

BELIEVING that a person is never too old to learn, Cape May county farmers have been holding at the Court House a series of evening lecture courses pertaining to their farm business. This work is in cooperation with the county extension service and the vocational schools.

A one-week's course in tractor repairs was held at a local garage and taught by Donald Balliet of Ohio. Those taking this course brought their tractors and spray machines to the workshop where they were completely overhauled.

Each evening one week, H. F. Thompson, proprietor of Thompson's Gardens, Seeking, Mass., lectured on practical matters relating to vegetable growing and marketing. On each Friday evening, January 24 to February 28, the poultrymen are meeting, while Thursday evenings, February 7 to March 13, are devoted to dairy problems.

NEW JERSEY'S potato growing champion is Carl S. Race, who, as farm superintendent of the State Home at Vineland, obtained an average yield of 461 bushels an acre, a new high record, on a three-acre plot in the 1929 state potato growing contest. Mr. Race was awarded a gold medal during Agricultural Week at Trenton and as the winner of the contest he will be known as New Jersey's "Chief Spud."

The previous high record in this annual competition of potato farmers, 434 bushels, was established in 1928 by Russell Thomas and Theodore K. Bennett, partners in a farming enterprise at Belvidere.

These two men were runners-up in this year's competition with an average yield of 332 bushels. Others whose yields amounted to 300 bushels or more to the acre are Edward H. Mackey, Belvidere, 316.7 bushels; William Smick, Salem, 312.8 bushels; Harry Featherer, Salem, 309.2 bushels; Joseph Fly, Hightstown, 307.5 bushels; Alfred Sloan, Elmer, 304.1 bushels; and Linwood Patrick, Elmer, 300.2 bushels.

All of these growers were awarded gold medals by the potato association in recognition of their high yields, and on each of them was conferred the title, "Big Spud," for the present year.

CANNERS and growers of canning crops from all sections of Maryland are expected to attend the annual Canning Crops School to be held at the University of Maryland, P. O. Box 18, on February 18 to 20.

According to E. W. G. the principal speaker at the school will be Dr. J. H. G. of the University of Maryland, who will discuss the importance of canning crops in the state and the methods of growing and marketing them. Dr. G. will also discuss the importance of canning crops in the state and the methods of growing and marketing them. Dr. G. will also discuss the importance of canning crops in the state and the methods of growing and marketing them.

The meetings will open Tuesday morning with an address of welcome by Dr. T. B. Symons, director of the University Extension Service. Following Dr. Symons, individuals from the University and State will talk on the problems of grower and canner.

A Profitable Winter Pastime

By C. A. MAY

LACK of plans at the beginning of the planting season has meant a loss to many home gardeners each year because of more or less haphazard distribution of their crops. "A garden well planned is half planted."

If the gardener will first measure the proposed site and then plan to use only as much of it as is needed for vegetable plantings, it will be possible to use the rest of the space for plantings of flowers and shrubs. Garden paths bordered with such plantings, together with the proper use of garden benches, tables, swings, bird fountains, and in some cases a pool, will add greatly to the attractiveness of gardening.

The ease and efficiency of cultivation are much enhanced if all the crops are in long rows, to allow wheel-tool tillage, either by horse or wheel-hoe. The old practice of growing vegetables in beds usually entails more labor and expense than the crop is worth; and it has the effect of driving more than one boy from the farm. These beds always need weeding on Saturdays, holidays, circus days and the Fourth of July.

If land is available for horse-tillage, none of the rows should be less than thirty inches apart. Those which require more space between the rows can be arranged by using a row space double that of the normal row. Vegetables such as tomatoes, cucumbers and muskmelons require the double width of row.

"Experience has shown that there is greater economy of space and that larger yields are obtained when a planting is considered which embraces the following suggestions," states K. C. Westover, assistant professor of the Department of Horticulture, West Virginia University.

"The entire garden area should be made to yield throughout the season. Most of the garden should grow two crops and a part of it three. Cool season crops as lettuce, spinach and radishes, should be followed by warm season crops like beans and tomatoes. These, in turn, may be followed by late crops such as turnips and beets.

"Our common perennial crops as asparagus, rhubarb and horse-radish, should occupy a space at the side or at the end of the garden where their culture will not interfere with that of the general vegetable crops.

"In arranging space for sun-loving plants as beans, tomatoes and peppers, care should be taken that they are not to be shaded by the tall crops such as corn or pole beans. Shading can be decreased by running the rows east and west. Attention should also be given to the crops which are to occupy places which are partly shaded. Although such foliage crops as lettuce and spinach require sun for a part of the day, they do better in places which are partially shaded.

"The garden should be planned with the planting of the long season crops especially in mind. The short season crops can be planted between the rows or between the plants in the row. For example, cabbage and cauliflower are planted as the main crop, with lettuce, radishes or spinach as companion crops.

"Whenever possible grow similar kinds of vegetables in the same part of the garden or have them occupy parts of the same row, since, in general, the same types of crops require much the same cultural treatment.

"If the area is limited do not plant crops which require wide spacing unless they can be trellised or staked. Tall types of peas, beans, tomatoes and cucumbers, if trellised, usually produce more per plant. Such practice will conserve garden space as well as increase the variety of vegetables grown.

"Those crops such as cauliflower, egg plant and peppers which may fall due to adverse weather conditions should be avoided by the home gardener if he has only a small area available. Their places should be taken by crops which are 'certain.'

"A good plan for the home garden calls for as wide a variety of crops as possible, which is consistent with the tastes of the family. The home garden should never be overcropped with a few

kinds of vegetables, but should be so designed as to furnish several kinds throughout the entire year," concluded Professor Westover.

The gardener should map out his job during the long winter months and know when to prepare the seed bed, when to buy seed, what to buy and the amount.

A garden 20 by 100 feet (note table) will supply vegetables for a family of five. Using the same width, a family of ten may have the same number and variety of vegetables by making the garden twice as long as in the latter case. In making the plan, estimate how much of each crop the family can eat in a week. Take radishes for example. Plant only enough of the first planting to take care of this amount. Provide the second week's supply with a second planting.

Such a system assures a constant supply of freshly matured radishes throughout the season. The same plan should be worked out with the other crops in the garden. It is a good plan to make several plantings of such crops as beans, lettuce, beets, peas, radishes and sweet corn.

New Marketing Channels

IT seems to be the idea of some folks that new marketing channels must be made through which farm produce should travel on its way to market. It seems to be a part of this idea that along these channels will be great depots where



Market gardeners have learned the value of carefully planning the layout of their crops. Note the long straight rows and inter-planting.



A field of cabbage with inter-planting of lettuce. Long rows are time-savers on large acreage.

the various commodities can be dammed up and held back during the seasons when farm commodities seem to go on a rush toward the ultimate consumer. The organization for operating the flood gates of these great depots is to be a farmer-owned cooperative that is to have federal aid and supervision.

As one who has had considerable experience in serving on the board of directors of a successful and an unsuccessful cooperative association and who has had ample opportunity to observe the attempts of farmers to cooperate in various ways I do not say that the scheme is impossible, but I do say that the scheme will be compelled to struggle against much opposition from the tide of farm produce as it now flows through the present marketing channels made and kept open by

GARDEN PLAN FOR FAMILY OF FIVE

| | |
|--|--|
| Space between rows, inches | |
| 18 Asparagus, Rhubarb, Artichoke | |
| 30 Peas | |
| 30 Early Potatoes or Peas followed by Celery | |
| 30 Early Cabbage, Cauliflower, Horseradish | |
| 33 Beets, Turnips | |
| 30 Onions (sets) with early Radish sown in row | |
| 30 Bush Beans | |
| 30 Early Corn and Summer Squash or Pumpkin | |
| 30 Late Corn | |
| 30 Lettuce, early and late Radish, Endive, Parsley | |
| 30 Spinach | |
| 48 Tomatoes | |
| 30 Cucumbers, Muskmelon, Watermelon | |
| 30 Potatoes (early) | |
| 30 Potatoes (late) | |
| 30 Potatoes (late) | |
| 30 Carrots (early) | |
| 30 Eggplant, Chard | |
| 30 Green Beans | |
| 30 Peppers | |
| 30 Parsnips, Salsify | |
| 30 Kale, Kohlrabi | |

(Note.—The above vegetables occupy a space of 60.5 feet. The remainder of the area may be used for hotbeds, coldframes, shrubs, berries, strawberries, and other plants which will not interfere with cultivation. The garden is 75 by 100 feet.)

the individual initiative of those who have the ability to make money out of handling what the farmer produces.

If new marketing channels are to be opened from the farm to the ultimate consumer through the cooperative activities of the farmers, no immediate or revolutionary changes in the system of marketing need be looked for, because a cooperative enterprise to succeed must be fostered by those who are cooperative minded, and who know the processes by which this cooperation can be effected.

The greatest obstacle to cooperation among farmers is the farmer himself. The present generation of farmers are very much individualists. They are not yet completely converted to the principle that the good of each is bound up in the good of all. Therefore, any scheme of cooperative marketing that will eventually survive among the eastern farmers must build up slowly through the education of the younger men and women who choose the business of farming as their life work.

Agricultural colleges, extension workers and Grange leaders have a great uncultivated field before them in dispensing knowledge concerning cooperation procedure. The former could well lay off for a season their efforts at stimulating production, and Grange leaders could well lay off from some of the spellbinding speeches on the general subject of fraternity and direct their efforts along the lines of teaching the young farmers the advantages of incorporation for carrying forward any cooperative enterprise.

My experience and observation tells me that more efforts at cooperation go on the rocks because of a failure to keep within the limits of sound corporation procedure and accounting than from another cause.

Insufficient capital is provided and the board of directors ungrounded in the principles of sound corporation procedure. The board of directors fail to require each employee to make a complete report of his stewardship. What one realizes the magnitude of the undertaking and knows something of the obstacles that must be overcome he can see no immediate wide-spread change in the formation of new marketing channels for farm produce.

Necessity is often the forerunner of progress. Hence so long as the farmer can find a satisfactory market for his produce by his own efforts he will not cooperate. On the other hand if the chain store continues to develop as rapidly in the future as it has in recent years it may be the obstacle across the present marketing channels that will provide the necessity for the formation of larger selling units through cooperation. It therefore behooves the younger farmers of today to learn something about sound corporation procedure.

V. R. Nicodemus

U. S. Engineer Looks at Russia

By L. J. FLETCHER

CHARACTER of the country, topography and farming customs of the U. S. S. R. make tractor farming very easy to introduce into most of the agriculture areas of Russia. Fences are practically unknown. The peasants, instead of living on their small farms, live in villages. While the land is farmed in narrow strips in parts of the country, there is nothing to prevent the merging of hundreds of small farms into large farms.

The land is generally level and free from trees and water courses. After one or two years of plowing with large tractors, accompanied by cultivating operations, all traces of the shallow division trenches between the former small farms disappear.

Much of the small grain growing region, particularly that devoted to the use of the Grain Trust, is an area where every precaution must be taken to conserve moisture. This calls for timely operation that is, plowing within a relatively few weeks, planting the entire area within a week or ten days, together with very rapid cultivation of land devoted to summer fallow.

The Russian workers, both young men and women, are quite dependable. While they are more or less completely ignorant of the repair of complicated farm machinery, they make quite good operators.

No wheat growing area in the world is any better adapted for the use of combined harvesters than the steppes of U. S. S. R. The straw is not rank, the fields are level, and in most parts of the country the harvesting season is relatively free from rain.

The peasant system of farming is chiefly characterized by the complete saving of all straw and grain. The small fields are reaped by hand after being harvested by simple types of reapers. Straw is used for thatching roofs, for fuel, and to a limited extent for feed.

When threshing grain, either with steam operated threshing machines or by the crude hand methods, the chaff is always kept separate from the straw and used for feed. Therefore, the recovery of straw and chaff is a problem to be met with the introduction of combines.

The Grain Trust is organized much like an American corporation; there is a Board of Directors responsible to the Chief Governing Committee of the nation. The main office of the Trust is in Moscow.

Farms of various sizes are located in all grain growing regions, but largely in the Ukraine, Caucasus and Volga districts. These farms vary in size from around 20,000 acres to as large as 400,000 acres. Land is being added each year. It is planned that by 1933 over 10,000,000 acres will be farmed by the Grain Trust.

Each farm has a manager and a group of technical assistants and foremen. The work is carried on largely as a series of campaigns: that is, starting in the spring, a plowing campaign, followed by planting and harvesting campaigns. Where summer fallow is practiced there is also carried on a more or less continuous cultivating campaign of the summer fallow.

The workers are composed of young peasant men and women who live in portable camps—each camp located on a unit of 5,000 to 10,000 acres. Tractors are used exclusively by the Grain Trust. The only animals used are a few saddle horses.

The U. S. S. R. is a large producer of petroleum products such as fuel, lubricants and greases,

which is an important factor in the extensive use of tractors.

The transportation of grain from combines to elevators is a rather serious problem, particularly where the hauls are very long. However, the experimental use of thirty to forty combines in the summer of 1929 so convinced the officers and technicians of the Grain Trust that they plan to use over one thousand combines in the harvest of 1930. These combines will largely be distributed in units of ten to twenty over practically the entire grain growing area.

There are many methods now being employed in U. S. S. R. for reorganizing the former crude peasant system of producing grain. In this system each peasant family would handle from one to several small strips of land, using very crude

virtually no roads, with the few exceptions where stone paved roads have been built between some of the important cities. The roads connecting villages and providing means of communication with the small farms are really nothing but rutted wagon trails, there being no attempt to grade the roads and in some cases no bridges are provided over the streams. During rains these trails become so rutted that the peasants automatically shift back and forth on to and off the cultivated fields, with the result that a considerable crop area is more or less damaged by fall and spring travel.

Winter travel in most of Russia is carried on by means of sleds. There is a tremendous opportunity for the building of graded dirt roads in U. S. S. R. These roads can be built at a minimum cost which will run somewhere between 100 to 200 rubles per kilometer, not including the cost of culverts, bridges or special water ways. In the Caucasus

camels, horses and oxen are all used for transportation. A wagon is a very essential part of the peasants' equipment since he hauls all machinery and his entire family, who share his labors, to and from his fields every working day and all produce over sometimes a considerable distance to market.

Lumber is quite scarce in the south of Russia. It is imported from the north of Russia in the form of poles. These poles are either used directly in the building of various structures, or are sawed by hand where boards are desired.

Contracts—Courtesy

THERE is a bit of the nomad in most of us and perhaps that is why the sight of a loaded moving van gives us a thrill, although, personally, we seem to have taken root and become permanently established.

I rejoice when a family of newcomers move onto a deserted farm nearby, and I envy them the planning and high hopes that accompany embarking on a new venture. How wonderful it would be if the result were always as fine as are the anticipations. A bit of caution will help toward desirable results.

There comes to my mind one instance where the contract between owner and tenant was not filled out until after the latter had moved—the contract proved very unsatisfactory. It pays to have the completed contract, minus signatures, at hand for several days, and this applies to any form of legal document. Careful unburied study of the wording sometimes reveals omissions, and one comes to observe that many seemingly superfluous legal phrases are of real importance. Our careful reading of a gas lease revealed that the word thereafter had been substituted for the word therefor and extended indefinitely the time limit when operations must begin.

The man desiring a tenant should see that whatever he furnishes, tools and livestock, is in good condition. It is well that the tenant may not be blamed for breakage or loss that occurred before his arrival and that he may be held to account for stock on hand.

The attitude of a farm owner decides to some extent what kind of tenants he can keep. Does he furnish good equipment, decent, respectable living quarters, a fair chance for his tenants? Each farm has a reputation which is mostly a reflection of the owner's character.

M. C. S.



Top.—The first time that two combines were pulled by one tractor created a great deal of interest on the part of Russian engineers, agronomists and large farmers.



Center left.—Peasant and family homeward bound after a day's work on a grain farm. The camel is used largely as a draft animal in the South Caucasus. Center right.—Tractor used by a commune in the North Caucasus. This machine with two others furnished practically all the power on a farm of 10,000 acres.



How grain is handled on a state experimental farm. The tractor hauls six to eight wagons, each carrying three to three and one-half tons of grain. Trains were hauled over the fields as well as on the roads.

machinery, and in some cases doing all the work by hand. For a number of years Russian peasants have cooperated in purchases and in certain farm operations. For example in many districts steam threshing outfits were collectively purchased and used for handling the threshing for quite a large number of peasants. The government is now attempting to further consolidate these groups so as to completely merge their land into larger holdings, which will be handled by government-purchased equipment operated in part by trained operators, also furnished by the government. In most cases the government also furnishes tested seed. In return for this government aid the peasants are expected to sell to the government a certain percentage of their crop.

Transportation of commodities in all parts of U. S. S. R. is a very serious problem. There are

BARTLETT nodded as he sucked ecstatically at his newly-lighted pipe. "Uh-um—wants you to settle—I reckon you know." He puffed out a cloud of smoke and picked up the oars. Crumb was gravely silent as they rowed ashore.

The watch-house was an unusually large one. It had a platform running completely round it and it boasted two rooms, a big living room with a cot, table, chairs and stove, and a kitchen which had three bunks, two on the side next the door and one the right of the east window. Eden Crumb was reclining in this one, his lame back bolstered up with several dingy pillows. He was a wild-looking fellow, taller and leaner than his brother, Mark, with intensely black eyes and picturesquely long hair that curled up at the ends. There was an air of bravado about him and a covert grin on his lips, which the twinges of rheumatism could not wholly wipe off.

Sheppardson was a thick, red-necked man with large golden freckles on his muscular arms, which were bare to the elbow. His lower jaw thrust forward in a hard, imperious way that was backed up by the expression in his cold pale little eyes, but when he spoke Toots was startled. The voice was a thin pipe, oddly at variance with the outward character of the fellow.

When supper was over Mark Crumb and Sheppardson drew their stools up to the head of Eden's bunk and began a colloquy in earnest but whispered tones. Mark seemed to do little more than lend an attentive ear to what the others were saying. It was an argument of some sort evidently. Bartlett took no part in it except through his eyes, which strayed frequently to that part of the room. He drew Toots to his own bunk, sitting on the untidy heap of comforters, with his legs dangling, and began to pump the newcomer.

It was about as easy a process as getting water out of a dry well. Though Toots wore an air of guilelessness, Bartlett got no information whatever. Instead, he found himself imparting it. Sheppardson, he said, had formerly been captain of a run-boat—that is, he had taken oysters from the coast and other places for the post, a job which was not very profitable, but it was a job.

Next day, he said, he had taken a run-boat to the coast and had taken a job which was not very profitable, but it was a job. He had taken a run-boat to the coast and had taken a job which was not very profitable, but it was a job. He had taken a run-boat to the coast and had taken a job which was not very profitable, but it was a job.

"But you don't want to think you can step on his toes, either," added Bartlett. "Or on Mark's. Mark's a slow man to start, but he's learned hard to stop before anybody has a chance to get about with him and likely as not back up the next minute, or head off on another tack. The only certain thing about Eden's uncertainty is—"

Sheppardson left presently, Mark accompanying him to the door where his skiff lay. He was gone a long time. Eden, who had been yawning and grunting alternately, stretched himself out with his face to the wall, declaring he was going to sleep if he took a leg.

"Guess I'll turn in too," said Bartlett. "Your beds in the father room, Pouche. You'll be warm enough 'cos we keep this door wide." He began to undress and Toots, acting on the hint, followed his example. He was not quite ready for bed when Crumb came in, in rubber boots and black beard glistening with moisture. Crumb removed his outer garments in silence and sat down by the kitchen table. As Toots lay on his cot he could see him through the open door, the lamplight shining full on his face, revealing his peculiar circular eyes fixed in a stony stare under his black brows.

TOOTS closed his own eyes and arranged his body to fit the sag in the cot's springs; but presently he opened them to steal another look at Crumb, who still sat in the same rigid, hypnotic pose. A steady, comfortable bass snoring came from Bartlett's bunk, while thinner, more broken sounds from the other side of the room indicated that Eden was getting some relief from rheumatic pains. There was evidently no reason why Toots also should not go to sleep. Probably it was Mark's habit to sit up to all hours of the night this way, gazing tragically into space, as if he'd lost his last friend. If so it was very unpleasant of him.

Crumb moved at last, with a loud sigh. He got up and walked toward his bunk. "He's going to bed," Toots thought with relief; but instead Crumb thrust his hand under the pillow and drawing out a book, returned to the table. The book was unmistakably a Bible. He ran the pages over

A Thinking Job

By Fisher Ames

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with a stiff, stubby brown finger, found the desired chapter, and began to read, his lips moving soundlessly over each word. At intervals he lifted his head and gazed raptly at the ceiling. On one of these occasions the lamplight struck glitteringly on something that rolled slowly down his cheek and lost itself in his black beard. Toots realized that the object was a tear.

For some reason or other Crumb was struggling with a strong emotion. It was not just a wave of religious fervor passing over him that caused him to cry. There was a look of suffering in his stony glances and bent brows, and his free hand was clenched. Two or three times he got up and walked back and forth across the room, his feet in their heavy woolen socks pad-paddling like the paws of a bear pacing restlessly in its cage. Then he would return to his reading as if he hoped against hope to find the solution of his trouble there; but it was plain that he did not.

Suddenly he rose and threw the book from him. "It ain't no use. I got to help myself," he said. "I ain't nothin' to you, O Lord! Nothin'." He clutched his thick black beard in both hands, his elbows against his breast, and eyes raised in an agonized look as if making a last appeal for divine aid. Slowly his expression changed to one of weary hopelessness, and with a gesture of despair his arms dropped. After a moment he turned and blew out the lamp.

Toots heard him groan as he undressed in the dark.

The next day they were tonging on Mark Crumb's best oyster bed, the bateau anchored against the thrust of the ebb tide, which had dropped sufficiently to let them see the greyish-yellow surface of the flat and even some of the

saucer-shaped depressions scooped out by the bills of feeding wild-fowl. "The spat caught mighty poor last year," observed Bartlett, tossing back a number of empty shells he had brought up. "That new bar to the north don't let the tide spread out any more. It's narrowed up the channel so all the water comes a-sweepin' 'cross here twice as fast as it used to. You can't expect no spat to ket up with the tide runnin' this way. She's all swep' down to the lower beds—which don't do us no good."

"It was Providence, not we-all, that made the bar," said Crumb tonelessly. "The spat sure didn't ketch though."

"There's ways of fightin' bad luck an' ways of layin' down under it," replied Bartlett oracularly, and he made it evident that he preferred to fight. "Anyhow what with the ice year before last and this current the bed won't be worth shuckin' mighty quick."

Crumb was silent for a time. "We've got a lot now," he said at length. He dropped his long pole across the heap of oysters and picked up the punt pole. Bartlett and Toots followed suit and propelled their bateau in Crumb's wake. The bed lay close to Mink Island with only the matter of a couple of flats and one wide channel between, hence it was unnecessary to employ anything but man-power in going and coming. On the way Bartlett explained his reference to the ice. There had been a long spell of unusually cold weather and the tides had not been able to carry the "bay" out to sea. It had thickened until it rested on the top of the bed and had "grown to" the oyster clumps—frozen around their bills—so that when it finally went out on a big tide it had carried thousands of oysters with it.

"An' the toughest part was it dumped most of 'em down on Rafe King's beds," added Bartlett.

The air on Mink Island seemed, as time went on, to be electrically charged. Toots thought. There was always a cutting edge to Bartlett's and Eden's grumbling and that edge seemed directed toward Mark. Strange remarks were dropped. Eden one night burst out with: "Are you man enough to stick to your word, or are you a-go-in' to begin over again and starve?" And Bartlett, chuckling, said: "We-all are not the only ones who've been down to it by a long chalk." Eden and Toots were applying pressure to Mark, trying to get him to do something or other; and Toots was sure that when he was out of the way the two men did not limit themselves to such veiled sayings.

THE dirty work of course fell to his lot and his wages were small, but his living cost him nothing and what he earned he could save. Toots was determined to save. He had a pretty fair idea already in his two hundred and fifty dollars, enough to set him up in the oyster business in a small way, but that idea appealed less and less to him. The business, he learned, was getting over-crowded, and there were many hazards in it. The Crumbs were not the only ones who grumbled. Toots kept his ears and eyes open if he did keep his mouth shut. He had learned that to ask questions was often the poorest way of getting information. The more silent you were the more confidential people were apt to be.

He was sent over to Big-Pound Marsh one day on an errand. Big-Pound lay across the bay and had a little colony of watch-houses on it where the roughest element of the fleet gathered at week-ends. There was a real pier running out into deep water and supporting a long, low shed where boats were kept in ice-bins in readiness for the "buy" or "run boats." Toots, tying up at the pier found King the man he wanted, right on the spot and half-drunk. Having delivered his message he inspected the bins in one of which a dozen big green turbot were lying on a bed of kelp. Beyond them, on a pair of low trestles, was a long, narrow, black box like a coffin. But why should there be a coffin in the fish-house?

He looked at it, reading the name A. C. Tuttle painted in white on the sombre lid, and passed on to the next bin as if his curiosity had not been the least aroused. King, smelling of whiskey and swaying at his elbow, began to chuckle.

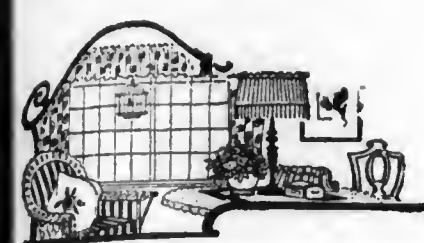
"Reckon you wonder what that's for," he said, pointing at the coffin.

"Coffins are usually for dead folks," said Toots guardedly.

"Smart—but not quite smart enough," laughed King. "Sometimes they're for live folks. Know who A. C. Tuttle is? Well, he's fish and game warden here."

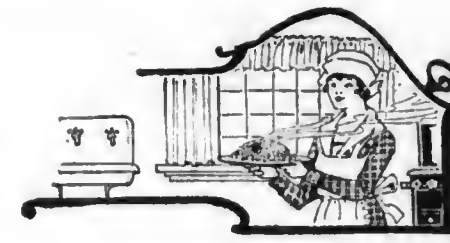
"And that there box is waitin' for him. All he got to do is to come pesterin' round yere, an' he'll all be see! He knows it's waitin' an' he knows he all are ready to put him in. We-all have writ him that seems fair," said Toots with a wooden countenance.

(To be continued.)



The

Farm Home



Six Successful Secrets

By GERTRUDE S. STEWART

A N ambitious young woman living on a small country place decided to try something new. She had read with ever increasing interest of women's success with poultry. So in May of 1928, she went into the chicken business. It was a field entirely new to her, and she made frequent visits to the State Experiment Farms, twenty miles from her home.

She bought two hundred day-old baby chicks of a reliable firm, and carefully followed the directions and suggestions of the State Service as to housing, brooding and care. October first found her with one hundred twenty-four fine pullets in tip-top shape for high priced autumn eggs. The cocks had gone into the broiler market.

You will be interested in these figures from Mrs. Johnson's farm account book. Monthly egg record: October, 1928, 424; November, 2,047; December, 2,643; January, 1929, 2,444; February, 2,685; March, 3,114; April, 2,778; May, 2,513; June, 2,270; July, 2,002; August, 1,777; September, 1,041. Surely that is a splendid record, and if we have any readers who can beat it, do write and tell us how you do it.

Secrets of Success

Mrs. Johnson has six secrets to which she attributes this success, and they are bound to help any one who leans toward poultry. Here they are: State service.—The Johnsons cannot say enough for the help given freely by the State Experiment Farm. They relied on this service and followed every detail. Their house was built in exact replica of those on State Farm. The care and feed was exactly as directed by the Station. You have the same opportunity, and your county agent is the state's nearest representative.

Good chicks.—A good start is a good consideration, and good, healthy baby chicks are the wisest beginning for worth-while pullets and winter eggs. Proper feeding.—Mrs. Johnson took no chances with the feeding of her fine brood. She followed the directions of state specialists who are constantly experimenting as to what is best for better results. We might as well benefit by their rich experiences.

Good housing.—Daily care of the hen house is as important as washing the breakfast dishes. Johnsons cleaned, scraped, scrubbed and disinfected. Chickens were not annoyed with lice or mites under daily cleanliness.

Water. Fresh drinking water was ever before these pullets, and the chill was not known to these layers. They know not what ice is.

Regularity.—A clock-like schedule was used in the feeding and care given this flock. The winter day was lengthened. Johnsons have their own electric plant and lights were turned on at six every morning during the winter months. No lights were used at night.

These are the six secrets on which Mrs. Johnson hinges her success. You see that after all, there was but one real secret, and that is the state help.

In My Garden

LAST spring a man who had called at our kitchen door spied my small flower garden and said, "Oh, what a shame to have that lovely spot way out here in the country. It ought to be in town where more people could see it."

But I do not agree with him. No one knows what a value we attach to that little plot of color. From early spring until late frosts, it fills our hearts with its fragrance and beauty, and enriches our lives with precious memories.

I have so greatly enjoyed the occasional letters from readers about their memory gardens, and I want to tell about mine and hope many others will do the same. Deep troubles and loneliness flee like magic when we stroll through this garden.

Here are hyacinths and daffodils, lemon lilies and gay iris, to remind us of happy visits and wonderful dinners enjoyed at Aunt Mary's. Visions of the old home come to us as the narcissi and tulips burst into bloom, and what memories the stately Madonna lilies bring!

Roses, corymbiums, hollyhocks and golden glow remind us of Grandmother's garden. The brave golden forsythia almost bursts into song as



One hundred twenty-four pullets brought to Mrs. R. C. Johnson a profit of \$451.96 in their work for one year. Even in zero weather, this little basket could not carry one day's eggs. Read her success secrets on this page.

it tells of school days, and the moon flower came from College Hill, too. Our first little home had one bush, bridal wreath, and home would not be complete without it.

Here and there we are reminded of pleasant trips or cross-country hikes. Hoosier beauty and sunburst roses carry us back to old Virginia, and yellow violas, jack-in-the-pulpit, and laurel leaves us at Conowiega Dam. Coon-herry bushes, Indian fire bush, wild asters, wild iris, wild tiger lilies, and many others whisper love of native haunts.

All this beauty graces a backyard which but a few years ago, was a miserable rubbish heap and weed patch. We have worked, to be sure, and are being abundantly repaid with almost daily messengers from these beautiful growing things.

Esther K. Crouse.

Quick Work on a Hard Job

WHEN an iron skillet shows burned grease on the outside take off the top plates of the kitchen range when there is a good hot bed of coals and put the skillet edgewise on the coals and let it get red hot. Turn until it has been red all the way around, then scrape with a limber knife and every bit of grease will come off like magic and after being washed in good soap suds it will look like new. Note: If you have a furnace, just lay it on the hot coals.

Mrs. S. M. A.

A Deadly Pair

OPEN wells and loose boards with nails sticking through them are daily destroying the lives of many innocent children on our farms and in the rural villages.

Let us use a bit of carpentry, and do it now, to safeguard our own and all little children. Both of these great dangers can be so easily overcome.

The Question Box

PLEASE tell me how to remove wax crayon marks from wall paper.

Mrs. H. K.

With a thin sharp knife blade, scrape away as much as possible. Dissolve remaining marks with a small pad saturated with gasoline. Work lightly and very quickly. Use dry pads to mop away what dissolves. Have no open flames while at this work, as gasoline is exceedingly inflammable.

The Farm's Best Crop

By HEPSY NEFF

THE sudden changes in the weather, lying just ahead of us, call for more attention to the feeding of growing children than even the steady cold of winter. Schools that have provided for a warm school lunch have seen its value and will continue their good work as well as advocate the same for other schools. In no school, city or country, has the use of the warm lunch failed to bring gains to the pupils in alertness of mind and better work generally.

Perhaps most of our readers know of the good work being done by the National Dairy Council, a farmers' organization now beginning to bear fruit in more than a dozen states, particularly in its work for the better feeding of children. At its eleventh annual meeting in Chicago, last November, the nutrition specialist of this great farm organization, aided by Mrs. Lydia Roberts, professor of Home Economics in Chicago University, presented a very comprehensive report of the work and results of lunch room activity in schools of many states. For fear this report may not be as widely read as it should be the following typical "A" lunch, as established by these specialists is here given.

"Milk one-half pint or two foods containing milk, as ice cream, creamed vegetables or cocoa. One vegetable besides potato, a fruit and a dessert if desired but not essential."

A Working Program

But the Dairy Council is not alone in cooperating with local workers in the interests of better health for children. On May 1 of last year Secretary Hyde of our Department of Agriculture broadcast an address by speaking at the opening of Child Health Week on "The Country Child, the Farm's Best Crop."

The "White House Conference on Child Health and Protection," called by President Hoover in November, 1929, marked another long step in advance. From that conference came a working program by which every state in the Union can cooperate working through its own state officials. In addition to all these agencies several large organizations of forward looking citizens have for years been at work in the interests of child welfare. Among the largest of these is "The American Child Health Association" with headquarters at 370 Seventh Ave., New York City. This organization offers the record of Child Welfare and Health work by states in an attractive booklet to be had by writing the Association at the above address. Its slogan is, "Youth is the strength of America. Make American youth strong."

Since our government has officially declared May 1 as National Child Health Day and the beginning of Child Health Week, with the way opened for state cooperation, no state can afford to seem backward. The use of pageants made up of blue-ribbon children; (those who meet the standard of age-height-weight tests) shows, first of all, the level of community interest.

Preparing for such a pageant must begin months before. Perhaps some schools in wideawake communities may find considerable material for such a showing on short notice. But one thing any and all of us can do. We may have the report of the National Dairy Council by writing to their headquarters, 307 North Michigan Ave., Chicago, Illinois, and we may have the report of the American Child Health Association by writing to their headquarters, 370 Seventh Ave., New York City.

Improving Your Home Surroundings

THE most effective way to improve your home surroundings at little cost is to be always looking for little things that should and can be done at once. A little here and a little there means much at the end of the year.

Mrs. S. M. A.

Marketing Feathers

A GOOD way to market feathers that accumulate on the farm from dressing poultry for market is to make them into pillows and sell to folks who are going to start housekeeping. Weigh each pillow to insure uniform size. I get more orders for pillows than I can fill.

Mrs. S. M. A.

| | | | | | |
|--|------|-------|-------|--------|----|
| Light Mixed Brothers | 3.00 | 5.75 | 11.00 | 54.75 | 10 |
| Heavy Mixed Brothers | 3.00 | 5.75 | 11.00 | 53.75 | 10 |
| Light Mixed Brothers | 2.50 | 4.75 | 9.00 | 41.75 | 8 |
| Wh. Bellin Ducklings | 5.25 | 10.25 | 20.00 | 100.00 | |
| Postage paid and full delivered on all goods | | | | | |
| For Greater Profit | | | | | |
| Ullish Poultry Farm & Hatchery | | | | | |
| Box E, Port Townsend, Wash. | | | | | |

What more is needed?

- Low Mortality
- Rapid Growth
- Bigger Bones
- Bigger Bodies
- Better Feathering

Larro Chick Starter produces all of these—that's why so many poultrymen say it is the "last word" in Chick Starters.

J. Earl Gregory, Horsehead, N. Y., says, "Fed a pen of 500 chicks on Larro from the very beginning and raised 98% of them."

Geo. W. Sarano, Lexington, Mass., writes: "It was our intention to put only 900 chicks on Larro but the results were so outstanding (even growth, livability and feathering) that we put our entire flock of 7,000 on Larro."

At the Larro Research Farm Larro Chick Starter has been measured through seven years of the most severe tests that can be applied to a Chick Starter. More than 20,000 chicks per year have been used at this great farm in testing Larro Chick Starter against every known feed and combination of feed ingredients. **In every test Larro fed chicks outgrew those fed on other rations.**

And do you know that just two ounces more weight per chick at the end of six weeks (figured at 30c per lb.) increases your profit \$49.80 per ton of feed.

You'll never know how good your chicks can be until you feed them Larro Chick Starter. **It reduces mortality, produces rapid growth, bigger bones, bigger bodies and good feathering.**

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LOWER PRICES—BETTER CHICKS

| Weight | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
|--------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 100 | \$5.00 | \$10.00 | \$15.00 | \$20.00 | \$25.00 | \$30.00 | \$35.00 | \$40.00 | \$45.00 | \$50.00 |
| 200 | \$10.00 | \$20.00 | \$30.00 | \$40.00 | \$50.00 | \$60.00 | \$70.00 | \$80.00 | \$90.00 | \$100.00 |
| 300 | \$15.00 | \$30.00 | \$45.00 | \$60.00 | \$75.00 | \$90.00 | \$105.00 | \$120.00 | \$135.00 | \$150.00 |
| 400 | \$20.00 | \$40.00 | \$60.00 | \$80.00 | \$100.00 | \$120.00 | \$140.00 | \$160.00 | \$180.00 | \$200.00 |
| 500 | \$25.00 | \$50.00 | \$75.00 | \$100.00 | \$125.00 | \$150.00 | \$175.00 | \$200.00 | \$225.00 | \$250.00 |
| 600 | \$30.00 | \$60.00 | \$90.00 | \$120.00 | \$150.00 | \$180.00 | \$210.00 | \$240.00 | \$270.00 | \$300.00 |
| 700 | \$35.00 | \$70.00 | \$105.00 | \$140.00 | \$175.00 | \$210.00 | \$245.00 | \$280.00 | \$315.00 | \$350.00 |
| 800 | \$40.00 | \$80.00 | \$120.00 | \$160.00 | \$200.00 | \$240.00 | \$280.00 | \$320.00 | \$360.00 | \$400.00 |
| 900 | \$45.00 | \$90.00 | \$135.00 | \$180.00 | \$225.00 | \$270.00 | \$315.00 | \$360.00 | \$405.00 | \$450.00 |
| 1000 | \$50.00 | \$100.00 | \$150.00 | \$200.00 | \$250.00 | \$300.00 | \$350.00 | \$400.00 | \$450.00 | \$500.00 |

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HUBER'S RELIABLE CHICKS

10 FREE CHICKS On orders booked before March 15th we give 10 free chicks with each 100 ordered. When we say RELIABLE we mean RELIABLE in every way. Breeding stock of highest quality of 20 years of careful development. Special attention paid to health of flocks and records kept.

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Write for details—see our illustrated catalog which tells all the story. Our prices reasonable. A look at Huber's Chicks worth many dollars given free with each order of \$10.00 or more. No discount for early orders.

HUBER'S RELIABLE HATCHERY North Main Street FOSTORIA, OHIO

birds. They should be over the molt by now and the more mash you can get them to eat the sooner they will lay.

The trouble you describe in your young birds may be due to range paralysis, but whatever is the cause, I think it would be helpful to rear young birds this spring in a different place away from the other birds.

If you need further help please write again. R. H. S.

To Disinfect Eggs

Can one use denatured alcohol to disinfect eggs before setting and a few days before hatching? What amount to use in pint of water by measuring spoon? Can you give me information on vaccinating turkeys for cholera, typhoid or blackhead?

Mrs. Ella G. Brown.

I HAVE been unable to secure any information, either published or unpublished, regarding the use of denatured alcohol as a disinfectant for hatching eggs. It is believed now that alcohol does not have the disinfecting value that we once thought it possessed.

If the egg shells are thought to be contaminated by germs of the harmful sort, they may be dipped with safety in a two per cent solution of a standard stock dip. They should then be allowed to dry without rubbing.

There is no information available relative to the vaccination of turkeys for typhoid, blackhead or cholera. We believe that if the turkeys are kept in a sanitary manner and fed only wholesome and uncontaminated feed, that a goodly number can be raised to maturity. H. C. K.

Green Wheat for Geese

I would like to know if geese that are allowed to run on green wheat will have fertile eggs. I have been told that geese eggs would not hatch if the geese were allowed to eat green wheat. G. E.

I HAVE been unable to secure any evidence which points to the fact that geese running over a wheat field would produce eggs which are infertile. It is generally recommended that breeding geese be given a good grass range and that they be fed grain regularly and some form of roughage during the winter months.

Care should be taken that the geese do not become too fat at the time of the breeding season, since poor fertility and poor hatches will result.

Oats are a very desirable feed for breeding geese. Very good roughage may consist of vegetables and clover or alfalfa hay.

Perhaps some of the readers of The Pennsylvania Farmer will be able to answer definitely your question regarding the effect on fertility of allowing breeding geese to run on wheat fields. H. C. K.

To Prevent Sprouting

O. H. A'S PLAN of preventing locusts from sprouting is a good one, though I doubt whether his reason given would stand the test, since the leaves of a locust tree when the bark is peeled off the trunk will die quicker than the roots will.

The locust is an everlasting sprouter if the roots are broken. Peel the bark around the trunk as soon as the sap is up and strip it down to the ground, and if roots are not broken the locust will die, root and branch.

Sassafras is easily killed if the trees are cut down and the land pastured for a year or two without breaking the roots. If the sassafras is girdled and pastured it will die, but if land is plowed it continues to spread and sprout thicker.

I have a patch of sassafras in a cultivated field that has required a continuous fight to keep down. This entire patch is from a single tree that was decimated, but the land was plowed before the roots rotted.

A. J. Legg.

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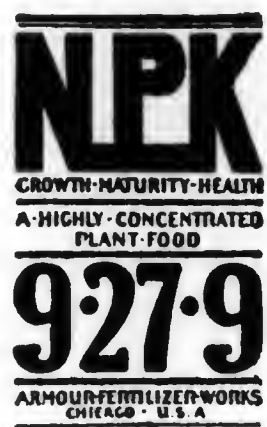
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A Weeder Designed for Use With Tractor.

Agriculture Engineering

By R. U. BLASINGAME

THE weeder was a good tool from the start, when it made its appearance some years ago. But it failed to a large degree because the manufacturer didn't know how to sell its use properly. Or maybe farmers did not recognize just how to use it.

Maybe I am writing this article about the weeder in a way which is not considered good journalism, if that term can be applied in my case. I began by calling attention to the weeder as a failure. Well, let the chips fly where they will. Anyway, one distributor of weeders in the state said he did not seem to be able to get the machines fast enough even though he bought them by the carload.

I feel sure that Dr. E. L. Nixon of State College had more to do with bringing the weeder back and into successful use than any one else in the East. He saw the value of the weeder for cultivating potatoes because it has value other than killing weeds.

The reason the weeder failed at first was because farmers waited until the weeds were about three to five inches high, then they got the machine out, and one trip across the field demonstrated the fact that large weeds were not destroyed. Often the weeder was left in a fence corner to rust.

Now the new idea is to begin to run the weeder in the potato field before the crop comes up, and continue to run it every week or ten days until the potatoes are 8 to 10 inches high. The small weeds are killed before they get a start, in fact, about the time they sprout.

The ground may become too hard for the weeder to take effect. When this condition arises a cultivator has to be used to loosen up the ground, then the weeder can tear out and cover the small weeds.

Other Advantages

Of course the principal object of the weeder is for killing weeds. It usually covers several rows even in the horse-drawn machine sizes. For this reason it is a very economical cultivating tool, because it covers a lot of ground in a short time.

Another advantage, some potato growers point out, is that the weeder, being run in the same direction each time through the field, lays the vines down and the branches have access to the sun and grow rapidly, thus producing more leaf surface. It is the leaf surface exposed to the sun that makes potatoes.

Still other growers say that the vines in this position can best be sprayed to control disease and insect pests.

Another feature, some point out, is the fact that the weeder teeth prune off the roots of the potato vines close to the surface of the ground, thus causing the tubers to be formed deeper under ground. This, they say, prevents sun scald of potatoes.

Thus it appears that the weeder has desirable features other than that of merely cultivating.

Tractor Weeder

With the advent of the general purpose tractor one well-known weeder manufacturer has "taken it by the forelock" and developed tractor machine. This weeder can be controlled from the seat of the tractor. In turning at the end of the row either end of the weeder can be raised to prevent it digging in the ground.

In fact, both ends of this weeder can be folded back to go through gates. The flexible ends also allow flexibility of the machine to conform to irregularities in the field.

This machine was shown at the Farm Products Show at Harrisburg the week of January 21st, and created a great deal of interest among several potato growers bought them.

There are a good many growers who have turned to the general purpose tractor for all of their farm work because equipment for even farm job has been developed. As with the tractor one man can accomplish so much more in a day than with a team. In any line of business one has to watch competition. If other fellow in the same business can produce the same commodity cheaper than you can it is time to look up the proposition.

A few years ago there was one general-purpose tractor on the market. Now there are six, which gives one quite a range of choice.

The mechanical power age in agriculture is here and the tractor weeder will play a prominent part in the economic production of both corn and potatoes.



A general-purpose tractor is at home in the corn field when cultivation time arrives.



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The All Purpose Tractor

By R. U. BLASINGAME

AGRICULTURE in this country employs more power than all of the other industries except transportation. This vast quantity of power, necessary to drive the machines of agricultural production, is made up of about four million mules, around sixteen million horses and the remaining twenty-eight million horsepower consists of trucks, tractors, gasoline engines, electric motors and windmills.

Feeling that our readers are well acquainted with the horse-drawn equipment so commonly employed in agriculture, we are going to devote this space to the "all-purpose" tractor. It will be called all-purpose tractor because each manufacturer has a different name for his machine, but they all will plow, make a seedbed, seed and plant, cultivate, harvest, thresh, fill the silo, run the feed mill, saw wood, etc. The all-purpose tractor is then a unit farm power plant.

International Farmall

One of the first successful all-purpose tractors to come on the market was the Farmall which is manufactured by the International Harvester Company in Chicago, Ill. This machine has had such universal adaptation and has established such a keen demand by farmers that the future of the all-purpose tractor is assured.

Following are a few of the specifications of the tractor: 1. Pulls two plows. 2. Power take-off at rear, runs about 530 r.p.m. 3. Tread of rear wheels can be altered to accommodate 42-inch corn rows and 34-inch potato rows. 4. Wheels equipped with vine guards or turners to prevent damage. 5. Can be equipped with either spring-tooth or spring trip cultivator. 6. Can be equipped with either two or four-row cultivator. 7. Mower attached at rear on the drawbar and operated by power take-off. 8. Clearance for cultivating corn same as that for horse-drawn cultivator.

John Deere General-Purpose

The next all-purpose tractor to appear was the John Deere. It has four wheels arranged to track, appearing very much like the conventional type tractor, except the clearance is that of the usual run of corn cultivators. It has a power take-off which runs about 553 r.p.m. A mower has been developed for this tractor which rests on the drawbar and operates by the power take-off. The John Deere G-P tractor plants and cultivates three rows at a time. It is powered by a two-cylinder engine, which handles two plows and the other tools of the usual run of a two-plow tractor. The John Deere Company's home office is at Moline, Illinois.

Rumely DoAll

This tractor made its appearance in the East a year ago, at the Farm Products Show, Harrisburg, Pa. It is made so that the front axle and wheels can be removed and the cultivator attached at the rear. To secure clearance for cultivating corn the arch of the axle is moved upward by sliding in one of the forward gears and cranking the engine over a few times with the ignition (or magnet) grounded to prevent the engine starting.

This tractor pulls two plows, the other drawbar and seed machine of similar size. When the cultivator is attached a large caster wheel is employed at the rear, for support, and which makes turning at the end of the rows a very satisfactory job.

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The J. I. Case Company, Racine, Wisconsin, has recently announced an all-purpose tractor. They call it the "CC," meaning cultivating as distinguished from the "C" tractor which (Continued on page 39.)

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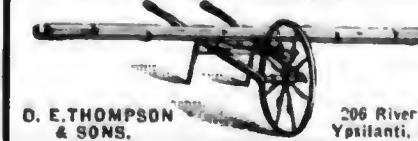
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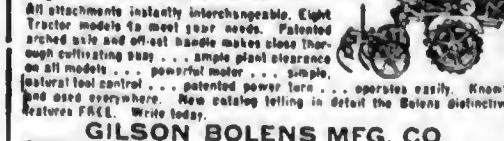


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The all-purpose tractor saves time in cultivating corn. Other makes of such tractors performing different farm operations are shown on our cover this week.

Farm Equipment in Review

By TUDOR CHARLES, Jr.

IMPLEMENT dealers in practically every farming community will set aside a certain day or week, this spring, when farmers will be especially invited to come in and view the new models in machinery and appliances—of which there have been an unusually large number during the past year.

While most of these improvements have been refinements of standard equipment, some of the useful attachments or new tools are almost revolutionary in character; in any case, the developments are of direct interest and of real importance to the farmer who realizes the need of keeping his production costs to the minimum and who is figuring on ways and means of saving labor and time in his coming year's work.

More new tractor models appeared than in any year since the war period, if we can depend on observations. Outstanding among all of these models is a tendency toward lighter weight, with more power in the field and on the belt. Along with these traits, low fuel consumption and, we might say, hardness are also included. The trend is distinctly toward dependable, long-life machines, with plenty of power, and as little excess weight as possible.

General-purpose tractors have been featured. Some of the more or less individual developments are adjustable width of rear wheels, narrow rim

wheels to reduce packing, and convertible styles.

Among other new ideas found in the 1930 tractor family are rubber-tired wheels which may be used for road hauling; a power lift for raising plows or cultivators while the outfit is stationary; additional forward speeds for faster operation on the highways, and a variety of other individual features. In addition further standardization and application of the power take-off has been carried on. Sprayers, binders, corn pickers, plows and mowers are tools to which this principle has been applied.

Attachments which have broadened the use of certain machinery are ingenious and valuable. For instance, a seeder has been made for the one-way disk, which is itself a relatively new implement. The seed-box sits over the disk cylinder and flutes run down along each disk. Wheat, clover, grass or other small grains are sown.

Disk-harrows on which the disks are adjustable in spacing are now available. They may be set close for plowing loose soil or stubble, and again they may be spaced wide for turning under a heavy growth of soy beans or clover.

Another seeding attachment is a device which drops clover seed in the corn middles at the last cultivation. By using this method, a stand of clover may be secured in early fall, and plowed under the following spring.



At corn-planting time the all-purpose tractor is found well adapted for this work.

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FARM EQUIPMENT WEEK

There is some new tool that will cut the cost of some operation or put an end to some old-fashioned way of doing something about it. In order to present its new models to the public the automobile industry, at an auto show in leading cities every winter. Farm equipment manufacturers show their latest developments in the small towns during Farm Equipment Week, which this year is to be held February 7-12. At this time local dealers will be able and glad to show and explain the latest models of labor-saving machines for farm use. It will pay to visit the dealer next week and see what he has to offer to help cut the cost of production.

Speaking of cultivators, use of wide-bottomed shovels instead of the regular size has proved beneficial for the corn plowings. These wide-bottom shovels sweep the surface soil and get away weed in the middle, but do not harm to shallow feeding corn roots. The necessity or advisability of deep cultivation has been disproved, as it has been repeatedly shown that the benefit of late cultivation lies in the killing of weeds.

Now let's take a look at the corn planter. We see an increasing number of fertilizer attachments for hill dipping the commercial product and the seed kernels. This method reduces the expense of application, as well as being positive in its results.

Two more devices improve the corn planter's activities. A rudder for holding the machine on the row on steep hillsides has its particular uses, and a double-disk affair which attaches back of the planter parts ridges soil over the row and prevents washing, until time is allowed for the ground to become compact. It is also said that squirrels and other small animals which sometimes dig up the corn hills do not bother when the kernels are placed deep at planting time.

Tillage machinery has undergone much development particularly in the way of equipment for tractor use. A plow which has two sets of bottoms, and is designed for turning the soil all in one direction, has been brought out. This implement has its greatest use on steep slopes where the operator wishes to turn all of the soil one way.

Plows and Cultivators

Wide-bottom moldboard plows are drawing attention as a means of killing trash. Advent of the corn planter problem has directed interest and the question of "clean" plows.

One-way disks are practically the only new use has been developed in this valuable machine. At the Bureau Polytechnic Institute, agricultural engineers have successfully built and maintained wide-base tools by turning the soil in from both sides with the disk. Only three or four turns across the field are necessary to throw up a sufficient embankment. Field cultivators have been used in the Northwest and Canada for a number of years, but last summer they found states further south and east large numbers. These tools may be used either with stiff shank shovels or spring teeth. When the former is employed, the shovels used continually wide sweeps known as "chisel" teeth. Users of field cultivators find the chisel sweeps for stunting and killing particularly, as they break the soil in a mellow condition and control a drabby soil.

For making an especially strong and durable weed, however, the best opinion is that spring teeth are the deadlier weapon. Machinery makers have designed a long curved teeth which tears at the roots of perennial weeds, and leaves them on the surface, in a mutilated condition.

In eastern potato growing sections farmers have found a valuable tool in the orchard harrow or "jostler." This implement, a cross between a subsoiler and a weeder, gets down into the

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ASK YOUR DEALER

The Story of Woodbine Farm

By W. D. ZINN

CHAPTER VII

WHEN a young man reaches the age of twenty-two and has decided that he cannot go to school any more, the sooner he gets married the better it is for him, and perhaps the better it is for the community as well.

In looking about for a wife there were several things I considered. First, I wanted to marry into a family that had good blood circulating through its veins, for I believe it is much more important to consider blood lines in people than in livestock. Again, I wanted a wife who was at least fairly well educated. This was not only because I believed an educated girl is more likely to make a good home-maker, but because, if she became a mother, the children would be better trained.

I did not follow the suggestion of a certain rich man, who said to his children, "Marry for love, but love where the money is."

On October 23, 1879, I married Florence Swearingen, the daughter of William Festus Swearingen, a Civil War veteran and Baptist preacher of Marion county, W. Va. Her mother was Mary Elizabeth Martin. Festus Swearingen died in 1867, leaving his widow with seven young children, six girls and one boy. The neighbors said to her, "Mary, the only thing you can do is to break up housekeeping, and put the children out." To which she replied, "Not while I have nails on my fingers."

They had fifty acres of thin land with a cottage on it. Mrs. Swearingen not only fed and clothed her children, but educated all of them to such an extent that six of them became teachers, three of them graduating from the Fairmont State Normal School.

Mrs. Swearingen went to her reward on the 16th day of September, 1911. I have often told her that her poverty was a great blessing to her sons-in-law. The daughters all made industrious, economical, good housekeepers. Their mother will live as long as her daughters live, and it is to be hoped, as long as any of the great, or great-great grandchildren live. We live in the hearts and lives of those we leave behind us.

Always Optimistic

Because part of her life had been spent in the town of Fairmont, my good neighbors thought I had made a mistake by marrying this girl who knew little or nothing about farm life. I do not mean to criticize my neighbors when I say this, for it was perfectly natural for them to form that conclusion.

I reasoned in this way: "This girl has spent part of her life in the country and knows something of its hardships as well as its pleasures. She comes of a good family. There have been no criminals among her ancestors, neither had there been any inebriates. If she can teach a successful school she has intelligence enough to learn how to meet the requirements of a farmer's wife."

My good neighbors were certainly mistaken in their guesses about the new woman who had come into their community. Many of them lived to enjoy her hospitality and all were convinced that she knew how to cook and keep house. She did more than that, she became a real helpmate, sharing in her husband's pleasures, but, at all times, willing to share and sympathize with him in his sorrows

and disappointments as well. She has always been willing to set aside her own pleasures for others, particularly for her children, who will never know the sacrifices she has made for them.

We were poor when we started in married life, but amidst all this poverty and doing-without, my wife was never known to complain because we could not be "fixed" as well as were many of our neighbors. She has always been optimistic. When her husband was downcast on account of a failure of crops, poor seasons or bad markets, she always had words of cheer for him. I am not sure but that sometimes I would have "given up the ship" had it not been for her words of encouragement.

Her father having died when she was 10 years old, resourcefulness and economy were early learned in the school of experience. She

and her sisters were always fairly well dressed but they did it by taking good care of their clothing and working their dresses over several times. These lessons in frugality stood this girl in good stead later in life when she became my wife and we were faced with the problem of winning a livelihood for ourselves and the children that later came to live with us.

I never saw the time when our pantry was not stocked with canned fruits, vegetables and meats. While many live out of cans bought at the store we have never spent many dollars for eatables of that kind. I attribute largely what financial success we have had in life to the fact that we have produced on the farm almost our entire living. I never had a store bill of any considerable amount. Instead we usually had a credit in the store where we did our trading. I do not remember of ever buying a store broom. We always grew our own broom corn and had our brooms manufactured.

Lived Within Means

Unlike many young people of the present day we started out with the determination of living within our means. If we needed something for which we did not have the money to pay we did without it if it was at all possible.

Our house was very plainly furnished but we were happy in the anticipation of having better furniture in the future. Many people make their lives and the lives of those around them miserable by continually bemoaning the fact that they cannot have what others possess. To be content with one's present circumstances and to strive to make them better in the future is a very commendable trait in any one's character.

My good wife has worked very hard during her married life, but I rejoice that the time has come that she can take some rest if she desires it. Her cares are not as onerous as they were when we lived on the farm and when we were trying to make money to lift the mortgage. She may now enjoy, if she will, the fruits of her labor.

If these lines should be read by a young farmer who is starting in debt in life, let me whisper this in his ear: "Do not make the mistake I made in buying too much land, and in paying for it allow or require your good wife to break herself down. Instead of buying another farm provide conveniences in the home and that

conserve her strength in order that she may enjoy good health when old age steals upon her." These conveniences were placed in the house on Woodbine Farm but they were too late in arriving.

Let me confess to another mistake I made in early life. We had only a very small bank account even in the most flourishing seasons, and I failed to see to it that my wife had some means of earning her own money and of carrying her own pocketbook.

On my return home one day I noticed that she had been crying—a thing that she rarely did, for she was of a very cheerful disposition. I asked her what was the matter and she said: "Oh! nothing," and walked into the dining room. I went to the dining room and said: "I know there is something wrong. Please tell me what it is." She went into the kitchen but I followed, still insisting on her telling me what had happened. She finally burst out crying and said: "I had to take 50 cents out of your pocketbook while you were gone."

Only this was I taught that the wife should have her own pocketbook and have some way of filling it. She now has it and for many years she has had her own bank account. In former years I felt that whatever money we had belonged as much to her as it did to me but she could not feel that way. For many years she practiced such strict economy that it is really hard to induce her to spend enough money on herself now. She is always willing and anxious that the other members of the family shall spend money for their comfort.

The law in West Virginia is very unfair to the widow. Every husband owes it to his companion to see to it that she gets a square deal in the event of his death. The only way to do this is by making a will. When two young people start out in life without possessing any of this world's goods and accumulate a small or a great fortune, that fortune belongs as much to the wife as it does to the husband. But if the husband dies and the law takes effect in the settlement of the estate and the estate consists of realty, the wife will fall heir to only one-third of the property and that for her lifetime only, while the children get the other two-thirds. If there be no children and the real estate is in the name of the husband, two-thirds of the estate goes to the husband's nearest kin, who also receive the remaining third on the death of the widow.

Calves Not Thrifty

A READER writes that he has a lot of calves and they are not looking very thrifty. What could be wrong with them? Many things might be wrong. Calves should never be fed over-ripe timothy. They should always have some kind of legume hay and that should have been cut before it was too ripe. Prof. Crech of the Animal Husbandry Department of our University says that 90 per cent of the calves of our state are lousy. Calves cannot look thrifty if they are covered with lice. There is no market for lice and it is poor policy to fatten them.

These calves might have lung worm. Better call a veterinarian. Calves with lung worm cough incessantly.

WHEN the Farm Loan Act was passed by Congress I said: "What a blessing to farmers and how I wish we could have had it passed when I was starting in business for I was in debt for thirty-five years."

The principle is all right but too many farmers have abused their privileges. Instead of borrowing the smallest amount that they could have got along with they borrowed all they could get and then began to buy what they could have done without.

It is sometimes wrong for a father to let his children have too much money and it is always wrong for Uncle Sam to let farmers have more money than they really need.



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Here is a machine for your cellar or drainage trench, irrigation ditch or flume. A mile of ditch a day is small. It is inexpensive to buy. Used on thousands. Mr. W. B. Farmer, Hampton Falls, New Hampshire, says: "Used two or three of the Little Wonder Ditchers, and the cost of the ditch was less than 2.00 cents per foot." Write for literature and details of our sales plan.

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Offers for 1930 a complete line of Sprayers, Dusters and Spray Thermostats. Write for literature regarding your needs.

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Due to increased sales and consequently lowered cost of production, SUNOCO Self Emulsifying Spray can now be purchased at lower prices than ever before. A further lowering of cost is brought about by the price now being quoted F. O. B. your local railroad station.

This is welcome news to the thousands of orchardists throughout the United States who have adopted SUNOCO as the best control for Aphid, Red Mite, Scale, and Apple Red Bug.

Sunoco has always been noted for its economy—now it saves you more money than ever before.

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MADE BY SUN OIL COMPANY
PRODUCERS OF BLUE SUNOCO MOTOR FUEL

500,000 Farmers Have Borrowed from the 12 Mutual Federal Land Banks a Billion and a Half Dollars at an average interest rate of 5.4%

THIS \$1,500,000,000 in long-term loans secured by first mortgages on their farms provided much needed capital during a period when funds were scarce and the average farm income low. All but a small percentage of these farmers have met their obligations. The 12 Banks have total capital, legal and other reserves and undivided profits aggregating more than \$80,000,000. Their total assets exceed \$1,300,000,000. The net carrying value of the real estate, sheriff's certificates and similar items owned by the 12 banks on November 30, 1929, was only 1.1% of their assets.

The services of the 12 Banks and the National Farm Loan Associations through which the loans are made have been of inestimable benefit and they will increase in the future.

The 12 Federal Land Banks are located at
Springfield, Mass. New Orleans, La. Wichita, Kan.
Baltimore, Md. St. Louis, Mo. Houston, Tex.
Columbia, S. C. St. Paul, Minn. Berkeley, Calif.
Louisville, Ky. Omaha, Neb. Spokane, Wash.

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Earn A FINE WATCH
In addition to a good profit,
by selling Hydrate—Ground Burnt in
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Arsenate of Lead, Calcium Arsenate,
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a million people use it as
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W. Atlee Burpee Co.
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Fruit Men at Harrisburg

By S. W. FLETCHER

THE seventy-first annual meeting of this time-honored organization, the State Horticultural Association of Pennsylvania, the oldest in the state except the Pennsylvania Horticultural Society at Philadelphia, was a fair index of the quiet confidence that prevails in this branch of Pennsylvania agriculture. There was neither exuberance over large profits nor pessimism over low returns, but a general feeling that the future, as the present, will yield fair returns to the man who does his work well. There is very little new planting of apples contemplated, however.

The moderate apple crop of 1929 was reflected in the Fruit Show, which was one of the smallest in years, though of higher grade than usual. It is a pity that the display value of this fine fruit should have been practically destroyed by showing it in such a crowded, dirty setting. This is in most humiliating contrast to the exhibit of the New Jersey Horticultural Society. The new Exhibition Building, it is hoped, will bring relief next year. Fruit growers should insist that it is not enough to merely show fruit; it must be attractively displayed.

Leading Winners in Show

The Sweepstakes, for the best bushel of apples, was won by M. L. Lightwood, of Fairfield, Adams county. The Gabriel Heister Cup, awarded to the exhibitor who wins the most points, went to Guy L. Hayman, North Brook, Chester county. The County Horticultural Society banner, awarded to the county winning the most premiums, was carried home by Franklin county.

The officers elected for the ensuing year are: President, J. S. Rittenhouse, Lorane; vice-president, H. S. Nolt, Columbia; secretary, R. H. Suds, State College; treasurer, C. B. Snyder, Ephrata.

The reports of the secretary and treasurer showed that the association is stronger than ever before. The paid membership for 1929 was 905, a gain of 194 during the year. Of these, 612 are members of county horticultural societies. Counties that contributed the most members to the association are: York, 95; Lancaster, 92; Erie, 60; Indiana, 52; Berks, 51; Chester-Delaware, 51; Franklin, 51. The association closed the year with a balance of \$225 in its current account and \$800 in its invested account.

Resolutions

Resolutions were adopted approving the plan of authorizing apple package manufacturers to add one cent a bushel to the market price, this money to be turned over to the "Apples for Health, Inc." for the national advertising of the apple; requesting the Pennsylvania State College to expand its research program in fruit growing, and to extend the County Spray Service; requesting the Committee on Game Laws to investigate the feasibility of laws now in force in other states (as in Massachusetts), which provide for compensating fruit growers for damage to orchards by deer; requesting the Farm Products Show Management to permit all fruit shown in closed packages which does not win premiums to remain the property of the exhibitor, instead of being sold for the benefit of the show, as at present; disapproving the proposals that the Farm Products Show be held in November instead of January, and that an admission fee be charged; authorizing the Executive Committee to consider plans for the celebration of the 75th anniversary of the organization of the association in 1934.

The banquet, on Wednesday evening, was featured by the presence of Hon. Charles S. Wilson, of Hall, New York, member of the Federal

Farm Board and a commercial fruit grower. He stated that the policy of the board, in carrying out the provisions of the Agricultural Marketing Act, was to work only through cooperatives, and preferably regional groups of cooperatives. There are 2,000 cooperatives in the Northeastern states, 200 of which are in Pennsylvania. The Federal Farm Board cannot contact with these individually; they must be affiliated into larger units.

The board has appropriated \$30,000 to make a study of the methods and problems of cooperative associations in the Northeastern states; \$3,100 of this amount has been set aside for Pennsylvania. The board recognizes, however, that any considerable regional cooperation in the marketing of farm products is likely to be a matter of slow development, in the Northeastern states, which is blessed with nearby markets, but believes that this is the road to ultimate improvement in the agricultural situation.

Four Sections Suggested

The board desires to set up an advisory committee that will fairly represent the apple industry, this committee to counsel with the board concerning marketing problems. It may be assumed that this committee would consider the desirability of establishing a national sales agency and stabilization organization for apples. The board considers representation on this Advisory Committee should be by regions, somewhat as follows:

1. The Northeastern states, including Pennsylvania and New Jersey.
2. The Cumberland-Shenandoah Region.
3. The Mississippi Valley Region.
4. The Pacific States.

The association is invited to participate in the selection of representatives of this region.

The outstanding feature of the meeting was the evidence that "no man can live unto himself alone," not even a Pennsylvania fruit grower with good local markets; his most serious competition may come from growers who live 3,000 miles away. This is why the annual meetings of the association are concerned more and more with marketing, and less with cultural problems; and why the Pennsylvania grower must keep alert on national as well as local conditions in the industry.

Fruit Propagation

I just bought a farm and I want to plant some trees. Two years ago I got more than 200 wild trees and grafted them. The apples and pears did pretty well, but the cherries and peaches died. Please let me know how to graft them. I made a bed and planted peach pits. Would like to know if they will grow the same variety of trees. T. Perry.

CHERRIES and peaches commonly are budded, not grafted. This should be done in August. Circular 103 of the Pennsylvania State College gives a full description of the method. Peaches do not "come true" from seed; the seedling trees you grow from these pits would be of a great variety of types, most of them worthless. They must be budded to a standard variety, as Elberta, in order to be useful. Usually peach seedlings are budded in August or September of the same season in which the pits were planted. If you have one or two year old peach seedlings they should be cut down to the new top budded in August; but this would not give as good trees as to raise some young seedling peaches from pits this season, and bud them in August.

If the cherry seedlings are old they may be whip grafted in April as described in the bulletin; two-year-old seedlings may be budded in July or August. S. W. F.

Truck Crops

Flooded with Salt Water

I am located in the tide water country on Del-Mar-Va Peninsula. I would like advice on peas for market. I have a plot of ground that is very rich, but this ground is flooded on a low tide, but is an extra high tide (this is salt). If peas will not grow what crop could I plant there? Also which salts do peas require? John H. Taylor.

It would be only a guess for me to try to tell you whether peas would produce on your land that is somewhat salty from occasional floodings by extremely high tides. I believe you would find the experience of others who have similar land in your neighborhood worth investigating.

Although it would not help you this year I wonder if it would be worth while as a guide to the future to plant a single row of several different crops on the land in question. That would be the best answer. G. S. W.

Onion Plants

I grow lots of plants for sale but have never handled onion plants. Now I wouldn't suppose that these would be as hardy as frost-proof cabbage. Could you advise a good and safe time to plant them? C. H. H.

ONION plants of such varieties as Prizetaker, Riverside, Sweet Spanish or others of the Bermuda or crossed types are considered to be less hardy than cabbage, but not so tender as the tomato.

I grow my own onion plants, sowing under glass early in February, so can not recommend a southern source from experience. G. S. W.

Cannery Crops

Do you recommend nitrate of soda on cannery peas? I am also going to raise tomatoes. When should nitrate be put on so the benefit will go to the fruit and not altogether to the stalk?

Could I sow sweet clover seed with the cannery peas without it being a nuisance or pest to the peas before harvest? Do you recommend alfalfa? In either case I am going to manure and lime heavily.

Do you advise growing Stark's Blight Resistant tomato as a money-maker for cannery purposes? J. F. V.

FOR cannery peas I believe you would secure better results from a complete fertilizer than from nitrate of soda alone. I would apply all of this just before planting. Without knowing your soil I would guess that two or three hundred pounds of 4-8-7 per acre would prove profitable. If you expect a good price a slightly heavier application would deserve consideration.

Tomatoes usually are fertilized with from 500 to 1,500 pounds per acre of 4-8-7 or a similar mixture on sandy soils.

I have sown sweet clover in early peas several times. If the weather turns out to be very dry you may fail to secure a stand. If very wet the clover may develop to a troublesome size, although I never have experienced this situation.

Marglobe and Greater Baltimore are popular cannery tomatoes. The safest plan will be to grow the variety favored by the cannery to which you expect to sell. G. S. W.

Heated Soil

I would like to know what can be done with ground in boxes that tomato seeds are planted in to prevent the plants being eaten off by insects and worms. Would it do any damage to the ground to heat it in an oven before the seeds are planted? S. W.

THE plan you suggest, heating in an oven, is used quite commonly to sterilize small quantities of soil to be used for growing plants in the house.

You will find that quite a little time will be required for the heat to penetrate throughout the soil and that good results will be secured more easily if the pan used is not too deep. If you "cook" the soil just enough to thoroughly cook a potato buried in the center no damage will be done. G. S. W.



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The man who owns a John Deere General Purpose Tractor and its equipment plugs up a big hole in his bank account—he needs little extra help—he saves a lot of money.

In cultivating with his three-row unit he covers from 25 to 40 acres a day. He does more work in a day than can be done with four men operating single-row outfits. He keeps ahead of the weather and the weeds.

With his John Deere General Purpose three-row planter he plants from 30 to 40 acres a day. He is in position to take full advantage of good days—to the extent of putting in extra hours when necessary.

There are no levers to operate on the planter or cultivator—the power lift on the tractor does this work for him—a touch of the toe on the trip button and up come planter runners or cultivator rigs—another touch on the same button and down they go to work.

This man cultivates round after round, hour after hour without stopping his tractor. Think of the time and the labor this feature saves him every day!

What's more, he has a tractor of standard design that does all the other field and belt jobs equally well within its range of power.

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There are reasons for the effectiveness of
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Three of the most destructive orchard pests can be controlled at one time.

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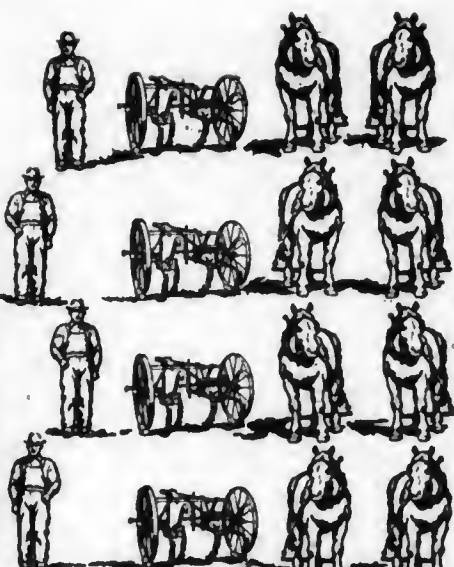
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Teacher—Now you have in front of you the north, on your left the west. What have you behind you?

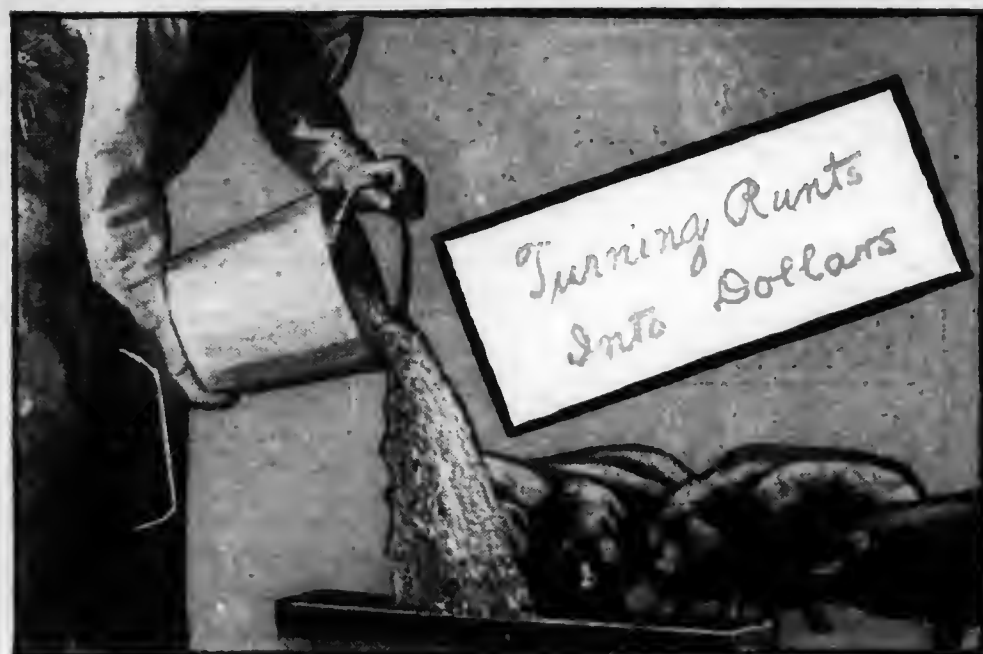
Small boy—A patch on my pants. I told mother you'd see it.

A black and white illustration of a winter scene. In the center is a vertical thermometer with a scale from 0 to 32. The mercury level is exactly at the 32-degree mark. To the left of the thermometer, there is a snow-covered barn with a thatched roof and a vintage car parked in the snow. To the right, there is another snow-covered barn and a vintage car. The entire scene is covered in snow, with trees and a fence visible in the background.

GARGOYLE

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NOTE: For a winter's supply we recommend the 55-gallon or 30-gallon drum with convenient faucet.



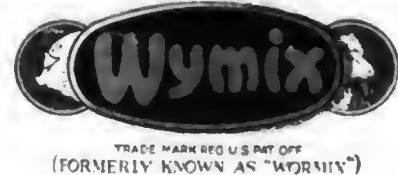
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The coupon entitles your liberal 30-day test package. This 3-pound bag of WYMIX, mixed with 17 pounds of common salt (or ash), makes 20 pounds of the best and cheapest medicine and minerals for hogs, sheep and other stock, lasts 40 hogs, sheep, or goats, or 10 head of cattle or horses, about 30 days. Simply put it before the animals; they eat it readily and actually doctor themselves. No handling or dosing.

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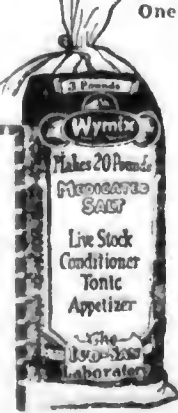
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Send me prepaid a 30-day test package of Wymix. I will feed it as directed, and will report results in thirty days. If it proves what you claim, I will then send you \$1. If it doesn't, you are to cancel the package.

Name.....
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If you order larger size, give shipping etc.

Pa. P. 2-15-30



Prepaid Prices Of Regular Sizes
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Each 15-lb. added to 10 lbs. of salt or ash makes a mixture of guaranteed conditioner, tonic, appetizer, mineral mixture. Best you ever fed. Lasts 100 hogs or sheep, or 25 head of cattle or horses about two months.

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Damage Done By Large Round Worms

Large round worms swarm the small intestines of nearly all poultry. They are the most common—most dangerous—and do more damage than any other kinds of worms which infest chickens.

If you could see the hordes of ravenous parasites at work in the intestines of your poultry, you would be amazed and horrified at their ghastly work of destruction. You would see the filthy, slimy pests gorging themselves with your costly feed. You would see them devouring your profits.

When you realize what enormous losses large round worms cause you, you will not rest until you have rid your flock of them, and saved your birds from these life-sapping, profit-eating thieves.



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Expels large round worms in a few hours. It is put up in powder form. Convenient to feed in a mash. Easy to treat an entire flock at one time. NO SEPARATE DOSING. No trouble or bother catching, handling, and dosing each chicken separately. Your fowls rid themselves of large round worms with Poultry Wormix. It is your best insurance against losses from these parasites.

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If Poultry Wormix fails to expel the large round worms which infest the small intestines, the money paid for it will be refunded—in cash—without argument.

Send, fresh from the laboratory, prepaid upon receipt of price. One pound can, \$1—six cans \$5. Each pound worms 100 fowls.

FREE SAMPLE

I offer a sample can Poultry Wormix for 10c to cover postage and packing. Each sample treats 10 fowls. Send now while offer holds good. Prove for yourself on your own flock that here is just the kind of medicine you always hoped to find—to keep your fowls free from their worst enemies—large round worms.

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State..... (Pa. P. 2-15-30)

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Published Weekly

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February 22, 1930



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Marshall's Amazing Corn Crops

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| 1925 | .. | *160 | bu. per acre |
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| 1928 | .. | *176.22 | bu. per acre |
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| *Per acre yield on 10 acres. | | | |
| Each crop fertilized with Chilean Nitrate. | | | |
| 5 Year Average Yield— | | | |
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IRA C. MARSHALL of Dola, Ohio, for the fifth year in succession, is Corn King of the World. His official 1929 yield, 170.14 bu. shelled corn per acre on 10 acres, made in the face of a wet season and an early frost, nearly equals his all-time record of 176.22 bu. per acre made the year before.

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250 lbs. per acre 0-14-4 before planting. Then 100 lbs. per acre

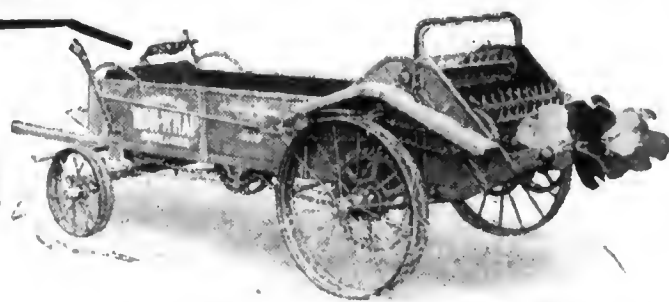
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Farm Facts and Fancies

By ALVA AGEE

I FOUND in the market a lot of potatoes that looked good to me. The bags carried the legend "U. S. No. 1, Selected," and that "U. S. No. 1" is something that careful buyers demand. The bag stated where the potatoes were grown. That was good. It carried the name of the association. That gave confidence. I bought a bag and when it was emptied at home the number of the smallish tubers surprised me, and I thought it worth while to count and weigh.

The potatoes were put into four piles by count, and the twenty-five per cent of smallest tubers showed an average weight of three and one-fifth ounces. The next fourth of the lot had an average weight of four ounces. The third quarter averaged five and a fifth ounces, while the best quarter showed the quite satisfactory average of seven and four-fifths ounces.

Here is a case where the trouble lay with the original stock of potatoes. Technically they met specifications, it may be, but the buyer was not interested in technicalities. One infers from this bit of research, without invoking the aid of any scientific formula or plotting any curves, that grading can take small potatoes out but it can't put big potatoes in.

Going a Bit Further

Grading of fruit and vegetables has been a big step forward. The public is learning to demand grading and branding. The next step would seem to be to deny the use of the words "U. S. No. 1" to the graded product of any lot of fruit or vegetables that does not have the stuff in it to provide a number one article. I see the difficulties, but they should be overcome. This applies to many things, but for the moment we are talking about potatoes and the brand "U. S. No. 1" should not have legal use on a bag containing potatoes of which three-fourths by count average in weight four and one-fifth ounces. The shippers of this bag complied with regulations, so far as I know, and it is the regulations that are interesting me.

Liberal Use of Fertilizers

Many of us remember the day when commercial fertilizers were regarded as mere stimulants, misleading the farmer using them. There is the story of two tramps who found a quart bottle of powerful moonshine along the railway track. After the bottle had passed back and forth a number of times, one of the tramps announced that he proposed to buy that railroad, and all the railroads, and all the automobiles, and all the hotels. His companion told him it couldn't be done, and when asked why replied that he was unwilling to sell. Poor land, given a heavy application of the right kind of fertilizer, is temporarily well fed, and whatever stimulation is added is healthy. I mention the matter for a reason, and of course dragged in the story without any reason.

There has been some interest in what has been said about the practicability of lifting a poor field into the productive class without delay by a liberal application of fertilizer if physical condition is good and lime is present. The suggestion was that the cost of such an application to winter wheat often was repaid in the increase in grain, and a clover soil could be secured that would put the field in the way of being permanently good.

An Erie County, Pa., Inquiry

One subscriber asked what I meant exactly by a "complete" fertilizer in this instance, when should it be applied and when should the timothy and clover be seeded. Nobody can know what is exactly a complete fer-

tilizer for a poor soil, and yet the practical man must make a guess and go ahead if he gets anywhere. Fifteen or twenty years ago I wanted to put a fairly safe working "guess" on this point into permanent form, and carried my statement into the office of Dean Thomas F. Hunt at Penn State College, regarding him as high authority as our country had. The doctor offered no criticism and so I took the risk of putting the statement in.

Having in mind soils not sandy, my belief was that a fertilizer in which the percentage of phosphoric acid was three times as great as that of the nitrogen, and the percentage of potash twice as great, should meet needs when applied in sufficient quantity.

The suggestion was that a fertilizer containing three per cent of nitrogen, ten per cent of phosphoric acid and six per cent of potash, applied liberally, should be used at a venture on poor land that was not sandy, and that a sandy soil should have more potash, cutting down some on the phosphoric acid for ease in getting more potash in the mixture, the raw materials in that day being less rich than they now are. It was a mistake to suggest any cut in the phosphoric acid.

Another combination having the same ratios of plant food would be a 4-13-8. At the Ohio Station a 4-16-4 fertilizer gives good increases in the yields, little potash being required. If our subscriber's soil is not sandy I would suggest a trial of the 4-16-4 at the rate of 350 pounds per acre, and yet if a field is strictly poor there probably would be little available potash in it and quite probably a fertilizer in which the percentage of potash was twice as great as that of the nitrogen would do still better.

To Reduce Cost of Hay

The work of the U. S. Bureau of Agricultural Economics interests me, and the most of the time I can trail along comfortably in my thinking, but the reason it assigns for its efforts to reduce the cost of producing hay is beyond me. It says: "Steady decline in the number of hay-consuming animals on farms and replacement of draft and driving animals with automobiles and trucks in cities has resulted in a decreased demand and price for hay. This condition makes it essential that producers of market hay seek means of reducing their production costs."

What seems to be needed is reduction of the amount produced so that it will correspond with the decreased demand. If demand for anything has a fixed limit and we are producing more than is needed to meet it, it would seem that we are traveling in a circle when we seek a cure in reduction of production costs.

More About Bulls

HAVING noticed in your paper for sometime the different accounts of fatal attacks of bulls, and some with one which was loose, I feel like offering the following suggestion: Turn no bull loose. Treat him gently. The bull has a wonderful memory and if forked or clubbed he will remember your and get you sometime when you least expect it.

Keep the bull in a good strong pen where he can see everything. He will get no noisy or become unmanageable. Always bring him out on a staff, take no chances and never allow one man to go to him alone.

We keep our bulls until they are six years or older in the above way fastened with chain from nose to ceiling. In good weather they are out, fastened to a heavy railroad track. S. W. Townsend.



This is a photo of "Susie," a pure-bred Shropshire pet owned and raised by Eula Parks of Marshall county, W. Va. This sheep shears about 12 pounds of wool every year and raises one or two lambs. People of Marshall county are beginning to favor the mutton breeds over fine wool sheep.—C. B. A.

Caleb Finds a Fault Finder

By FRANK K. RICH

MR. CALEB PEASLEE, with something of the air of a man approaching the confessional, sidled into Deacon Lysander Hyne's yard and made a seat, as comfortable as possible, upon the deacon's wood pile. The deacon, adopting the shorter method, gave Caleb a greeting, cordial enough, but brief, and waited for him to begin.

"Do you figger, Lysander," Caleb began with a diffidence which he did not attempt to hide, "that I'm over my fault findin' with such of my neighbors as I mention? What I mean," he amplified, "is this: Ain't I full as apt to find somethin' good to say about a man as I am to find somethin' against him? Wouldn't you say I am?" He paused and eyed the deacon anxiously.

The deacon pondered this gravely, thumbing his upper lip.

"Well," he hesitated, "I d'know, Kellup, I really d'know what I ought to say to that, off-hand."

Caleb showed disappointment, tempered by resignation.

"I was sort of expectin' it, Hyne," he admitted, "but I let myself hope for somethin' better, even if I wa'n't justified." He heaved a sigh. "You seem to look at it about the same as my wife does," he went on.

The Search Begins

"This mornin'," he explained, "I guess I must have got up in a kind of carpin' mood; I want to think so anyway. Two or three little things went sort not to suit me and I may have mentioned 'em to my wife, 'though I don't r'member it now. And then, d'arin' the time we was eatin', somethin' brought up the matter of fault-findin'—somethin' my wife said, it was, and while I couldn't see any p'cular reason for her mentionin' it, I answered her—more to make conversation than anything else. And in doin' it I naturally cast 'round in my mind for somethin' or somebody for an illustration, 'is you might put it."

The deacon looked up quickly, nervously apprehensive.

"Who'd you pick on?" he demanded. Caleb giggled.

"It wa'n't you, Hyne," he assured him, "though I won't go so far as to say it couldn't have been. But as a matter of fact, I fetched up Henry Titus and spoke of the way he's always goin' on about that girl of his; and I gave my opinion that the girl would be all right if she was let alone, and not nagged by Henry all the time."

"My wife heard me out, and then she says: 'That's mostly so about Titus, I make no doubt. But he wa'n't the man I had in mind when I spoke,' she says. So I cast about to think

who else she c'd have been thinkin' of.

"'Mebbe,' I says, 'it might have been Reuben Vinal you meant; he finds a good deal to c'mplain of in his neighbors. If it ain't Peter's folks, it's Jed Piper; or if ain't either of them, it's likely to be some other neighbor—Gilman or Mitchell or somebody else. I've heard him carpin' about all of 'em outside a week, or a fortnight at the outside,' I says.

"She shook her head and looked 'sif she was keepin' somethin' back, and it made me wonder a mite.

Taking the Census

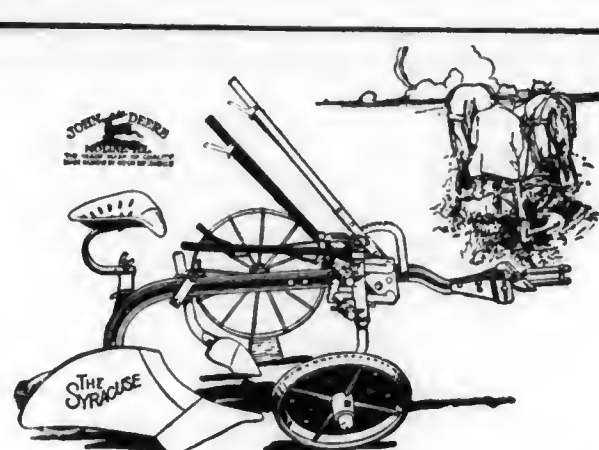
"Dan Herrick?" I wanted to know, but she only shook her head again. I thought sure I'd hit it that time, seein' that Herrick don't do much but pick flaws in folks, when he talks at all, and I was a mite cast down when I found it wa'n't him. But I'd got my dander started by then and I wa'n't goin' to give up. So I went on namin' over diff'rent men and she kep' on tellin' me I hadn't hit on the right one as fast as I spoke. I started way down at the far end of the village and spoke of every house in order, jest as they came, takin' every side road and not missin' a person, far's I c'd r'member; and in the end I had to own up I was bested. She hadn't give me any sign that I'd put my finger on the one that prompted her 'marks in the first place.

"O'well," she said, "whoever it is you're thinkin' of, it looks safe to say he ain't a dweller in this village, 'I any rate, for I've took every road in the village and gone over 'em house by house, namin' every voter, I'll venture to assert—every one of 'em! Ain't I?" I asked her. And she only put her hand up to her mouth, 'sif she was coverin' up a grin, b'fore she answered me.

"Have you—certain?" she said, all the time lookin' more and more knowin' and I give it another minute of thought and told her I was certain.

"Well," she says, "you think a spell longer and see if it don't come to you that you've left out one man—the likeliest one of all, sometimes to my way of thinkin'—and with that she out of the kitchen and left me with the light jest breakin' into my mind like a blaze.

"But there's this much about it," he went on resolutely. "I may be all my wife hints I am—but from now on I ain't goin' to be! When I feel another fit such as I had this mornin' creepin' over me I'm goin' to say: 'Name over your neighbors, Kellup Peaslee, and pick out the one that's prone to carp and I'll bet I'll think of this mornin's lecture and find somethin' good to say of 'em! I'll bet I will!'"



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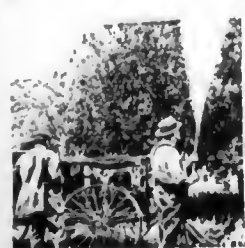
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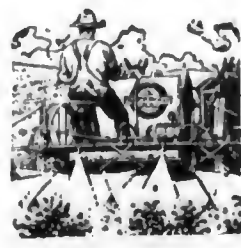
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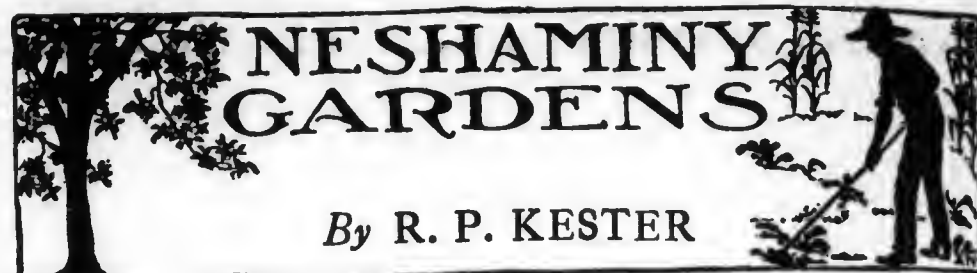


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By R. P. KESTER

DURING the past ten days I have received several of the most interesting and cheering letters of my experience as a writer. Most of them were from people I have never met personally, but that is one of the reasons why I appreciate them so much. As one grows older, friendship seems to become more and more the most worthwhile object in life. I remember hearing my grandfather say as he neared eighty that nearly everything in life except friends lost their value with age.

Part of one of the letters referred to above is as follows:

"Dear Sir—Glad to read of your birthday on the 18th of January. A neighbor and myself observe the same date, including the year. I notice that Benjamin Franklin was born on the 17th, and several other notables claim the 18th as their birthday.

"I have been a constant subscriber and reader of the Stockman and Farmer for 22 years, and my father for many years before me. I recall that when I returned to the old home place upon the death of my father in 1907 to take care of my mother, she mentioned this paper to me, and enjoyed the writings of certain men. I recall that Agee, Lighty and Zinn were among the number. I have also enjoyed them. I recall hearing Mr. Agee speak at one time and just missed hearing Mr. Zinn.

"Until the merging of the two papers in 1928 I was unacquainted with your writings, but since then have enjoyed them thoroughly. I am sorry that I cannot answer some of your questions. . . .—G. L. B., Va.

This one comes from West Virginia:

"We are much pleased with your department in the Pennsylvania Farmer. Mr. W. D. Zinn was expressing his appreciation the other day. By the way, his wife died yesterday—a noble woman and the wife of a noble man. I have lived beside them for over forty years and know whereof I speak.

"There are a great many things we want you to tell us in your notes—when to plant our garden, what to plant, what kind of fertilizer to use on different crops, and when to use lime. So many writers tell us after it is too late.

"I am a general farmer and stock raiser, and have four hundred acres in my farm. We are getting along in years, but are not too old to learn. Don't forget to tell us what kind of a garden tractor you have."—E. R. D.

One of the best letters of the week comes from my old friend, E. F. Reynolds, who for several years was the Washington correspondent for the Pennsylvania Farmer when I was editor. Mr. Reynolds writes in the same interesting manner he uses in newspaper writing, and when that facility is used to write personal letters you can see how interesting they would be.

I hope to get each one of the writers answered before it would be out of date. But the number of letters, when considered in connection with my daily work, is so great that sometimes the answer is delayed longer than I like it to be.

All this may be considered by some to be beside the mark in agricultural writing, by being too personal. But for the benefit of those who have come into the Pennsylvania Farmer family since I began writing this column let me repeat what I said at

first. This space was set aside for personal use eight years ago. I wanted a corner where I could talk about things that interested me whether any one else was interested or not. As long as the present editors let me get by with it, that is what I shall continue to do.

But during those eight years I have found that many other people are interested in the same things and some of them hold the same views. Others have different views. Well, that is their right and privilege. But during the years I have been writing to and for the public I think I have increased my circle of friends many times. Egotism? Well, call it that if you like. The most critical exceptions to my writings have come from those who differ on political and social subjects, namely, taxation and prohibition. The only real loss of friends I know of is one in Lebanon county, who wrote rather scathingly to the editors because he twisted the application of a little story I told and made it apply to himself when such a thing was not intended.

But all in all, I have enjoyed it. Sometimes it is difficult to find anything to write about, as is frequently evident. But letters often help me out by suggesting things worth while. Let them continue to come.

Friendly Talks

By Edgar L. Vincent

It will not be very long now before all through the maple sugar belt of the United States the tinkle of the big drops of sap will make sweet music in the tin or galvanized buckets.

If we listen we can hear these drops say, "I am giving the best there is in me for you." And that is true. We gather up and use a small part of the sap and turn it into syrup and sugar, the sweetest, most delicious sweet in the world. And the rest pushes its way on through tree trunk and branch, out to the tips of the limbs, giving off all the way along a bit here and a bit there for wood for trunk and branch and finally for leaves through which the tree really breathes and drinks its life. And all for you and me.

Giving for you. It is the thought back of everything that goes on in nature. We cannot think of a single thing nature does from one end of the season to the other that is not embraced in those three short words, "giving for you." And nothing escapes our thought in mind: "I am doing this for somebody else." The thing is so simple and solely for our pleasure, no power to make the heart glad.

Once I tried to find a man, and whom I had business. Such a man I had! Life had somehow soiled the milk of human kindness in his heart, and left him an unhappy, as all tired man. He had set out to get around his house; they had not seen him; he was alone. But he was happy.

To be at one's best one needs incentive to work, and that incentive is most often found in a little piece of land, a good home, with a good wife to help build up the home and enjoy the good things won from the soil.

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No. 8

Our Changing Livestock Industry

By GEORGE F. JOHNSON

LIVESTOCK has always played an important role in Pennsylvania agriculture. William Penn impressed on his colonists from the very beginning the absolute necessity of increasing their livestock just as fast as they were able to. By 1700, only 18 years after the first settlement in the Commonwealth, some farmers were reported as having 40 to 50 head of cattle besides hogs, sheep and poultry. This development resulted in the colony becoming a leading exporter of animal products very early in its history.

This upward trend in livestock numbers carried through the eighteenth and well into the nineteenth century with only the temporary recessions that characterize a growing nation. However, after the Civil War the industry, which had served so well as the backbone of the agricultural system, encountered difficulties on the one hand and added opportunities on the other.

Competition from western producing sections in sheep, beef and swine raising and the new demand for milk, eggs and poultry arising from the phenomenal growth of population in the eastern states brought about in Pennsylvania far-reaching changes. More pronounced readjustments have taken place in livestock kept on farms within the past half century than ever occurred before in all the state's history.

Take sheep, for example. They were the first to yield to the West. Before 1850 more than 2,000,000 sheep grazed the hillsides of Pennsylvania. Forty years later the number had fallen to 1,700,000 and by 1924 had tumbled to 415,000. This wholesale exodus of sheep, due to competition and the dog menace, can be best appreciated by the fact that all the sheep in the state today just about equal the number in Washington county alone 40 years ago. There has been a slight upward trend in number of sheep on farms since 1924, however. In fact, 45 counties had more sheep on January 1, 1929, than five years before.

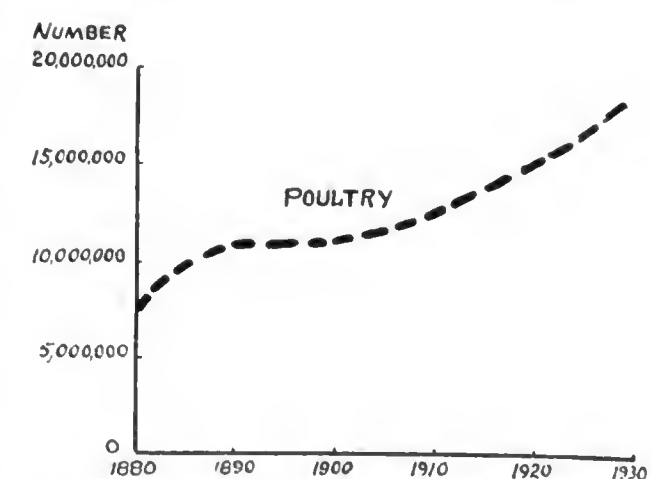
Beef cattle were the next to encounter the need for readjustment. The number gained after the Civil War to about 1890 when a sharp decline set in. Temporarily, the bottom was reached just before 1900, after which the number rebounded to the highest on record. Since 1905 the number has been decreasing until today it is only slightly more than half the figure of 25 years ago.

The trend away from beef cattle in some counties started more than 40 years ago as a result of shifting into dairying. Between 1844 and 1884 there was a decrease from 54,000 to 33,400 in number of beef animals on farms in Bucks, Chester,

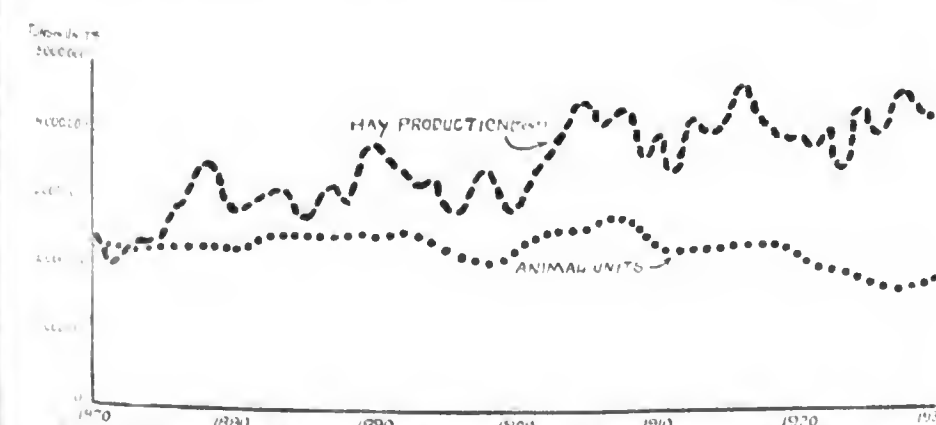
Delaware and Montgomery counties in spite of an increase from 562,000 to 811,100 in the state total. There is no doubt but that the development of dairying in these four counties was responsible for the decrease in beef cattle.

Another interesting point is this: Since 1884 the greatest percentage decrease in number of beef cattle has occurred in such counties as Bradford, Crawford, Mercer, Somerset and Tioga, all of which might be termed as among the newer dairy counties. Lancaster is the only county in the state which shows an increase in number of beef cattle during the past 40 years.

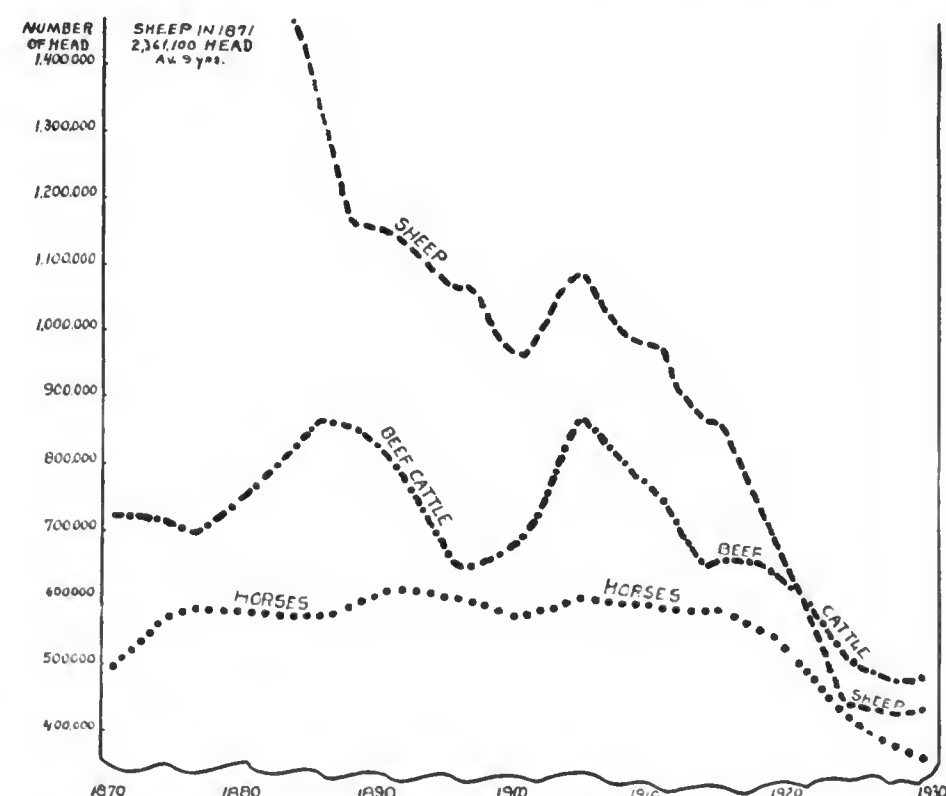
Swine have had their "ups" and "downs" perhaps more than any other class of animals on Pennsylvania farms. The number exceeded 1,000,000 during the Civil War, decreased to 950,000 soon after the War, reached another peak about



Poultry: Number on farms in Pennsylvania, 1880-1929, as shown by federal censuses and state estimates. The number has increased more than 100 per cent since 1880.



Hay production and hay consuming farm animals expressed in units based on feed requirements, Pennsylvania, 1870-1929. Note the lack of any clear relationship between the two lines. In fact, if the decrease in number of hay consuming city animals could be taken into account, it appears very probable that the lines representing hay consuming animals would show a very much greater downward trend.



Sheep, beef cattle and horses on farms in Pennsylvania, 1870-1930, according to a moving average of annual estimates. This chart shows in an impressive way the tremendous readjustments that have taken place in the livestock industry during the past 25 years.

1890, dropped to less than 1,000,000 around 1905, climbed to over 1,200,000 around 1916 and then declined from the highest to the lowest point on record within a period of 15 years.

By taking the census figures by counties for periods centering around 1884 and 1924, local trends in swine numbers are indicated. Every county, with the exception of three, shared in the 35 per cent decrease in number of swine between 1884 and 1924, the decrease being relatively less in the principal corn producing counties in the southeastern district of the state. Fourteen counties in this district have now almost one-half of all the swine in the Commonwealth compared to any slightly more than one-third in the period centering around 1884.

Horses have added fully as much to the changing livestock picture as any other class. Forty years ago there were approximately 138,000 more horses and mules on Pennsylvania farms than today. At first thought this appears as a sweeping replacement of horses, and yet the interesting fact is this: the change in number of horses during this period has been no greater than the change in extent of farming operations. The amount of improved land in farms, if divided equally among the farm horses and mules, would have given each about 22 acres in 1924 as well as in 1884. This emphasizes the point that we have fewer horses now partly at least.

(Continued on page 30).

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THE FARM CENSUS

SEVERAL farmers have asked us to supply sample schedules of the 1930 census of agriculture and we have done so. But the best way is to write to the Bureau of the Census, Department of Commerce, Washington, D. C., and ask for a copy of this schedule. No return postage is required and the Bureau welcomes such requests.

FARM BUTTER CONSUMPTION

THE leaders of the dairy industry who are engaged in a campaign to increase the consumption of butter are entitled to the support of all dairymen. For all are financially concerned, directly or indirectly, whether they produce butter, cheese or milk for market. Whether dairy farmers use butter or substitutes therefor is a business question, not a moral issue, and the appeal to them is very properly based on business reasons.

FROM LIFE

AN old man who owned a profitable dairy business wanted to retire and move to a distant state. A young man who understood the business wanted to buy it but lacked the necessary capital. He consulted a friend and was told that his banker knew what the business was doing and would probably lend the money. The young man had never used his bank in this way and would not believe it possible to do so but consented to see his banker about it. To his surprise the banker offered to finance the deal. The right kind of a man can usually get credit for the right kind of a business.

CHARLES J. WEBB

LAST week Charles J. Webb, one of the world's great wool merchants, died at Philadelphia. He entered that city as a poor boy and became one of its leading citizens. His first job was with a wool dealer, who found him waiting for the doors to open on the first day of his employment. His judgment of wool was of the highest order and he had the courage to back it. Some years ago we discussed with him the possibility of exchange trading in wool. He did not think it likely to be adopted because of the variations inherent in the product. He declared that in wool "each man's eye must be his market" rather than somebody's judgment as expressed in a market grade. During the

war Mr. Webb was active in trying to restore sheep to eastern lands. He was active also in Liberty Loan and other patriotic movements as well as in benevolence, for he subscribed \$12,500,000 to the Fourth Liberty Loan and on one occasion gave \$100,000 to the Salvation Army.

A TREMENDOUS EXPERIMENT

A TREMENDOUS social and economic experiment is in progress in Russia. It involves billions of dollars and many millions of people. Agriculture is a great and essential part of it as is inevitable in an agricultural nation. A part of the extensive program laid out by the Soviet government of Russia is to develop agricultural production by collective or cooperative farming in large units, these enterprises established and equipped with machinery by the government. And a part of this movement is the purchase of a vast quantity of agricultural machinery. The Amtorg Trading Corporation, an agency of the Russian government, announces the shipment of 20,125 tractors, 17,000 plows and 20,000 drills from this country. By large-scale farming with this and other machinery the government expects to expand this year's crop area to 335,000,000 acres, which is 14.2 per cent more than the crop area of 1913. Improved seeds, modern methods of cultivation and the use of commercial fertilizers are a part of the official program of production.

We cannot believe that the production of anything can be maintained anywhere without the incentive of personal gain but the Russians think it can be, and they know their country better than we do. Human nature has always defeated such movements as this production for the public and we expect it to do so in the future, regardless of the money invested or the influence used.

FIRST STABILIZATION CORPORATION

LAST week the Federal Farm Board announced that it had recognized the Grain Stabilization Corporation and would provide it with \$10,000,000 "to carry on its initial operations." This is the first stabilization corporation to be formed under the Agricultural Marketing Act. It has broad powers under that Act, since it may "prepare, purchase, handle, store, process and merchandise" the grain for the purpose of controlling the surplus or stabilizing the market. All profits accruing from its transactions, or any losses resulting therefrom, are assumed by the revolving fund, the members of the Corporation not being benefited by profits or harmed by losses. The real function of the Corporation is to speculate in grain, in this instance in wheat, for that is what any individual or organization must do if it buys, holds and sells or does any of the other things specified in the Act. One of the declared purposes of this Act is to promote the effective merchandising of agricultural commodities "by minimizing speculation." One of the results of it is a big speculation by an agency created by a federal board and financed by public funds.

The corporation was said to have bought considerable wheat last week, but at this writing no statement of the extent of its transactions has been made. Being a public institution the public is entitled to know about its operations. At best it is bound to create new uncertainties in the grain trade, but these should be kept to the minimum by the prompt publication of all its transactions.

A WHEAT QUESTION

THIS question comes to us: "Why should wheat prices go down when this country's production and the world's production last year were less than in 1928?" There are

several influences back of the decline in wheat prices but nobody knows just how much any one of them has had to do with it. Supplies at the beginning of the current crop year (July 1st, 1929) were liberal. The carry-over was known to be large, but it was not all in sight and the invisible part of it was larger than expected. The foreign demand was disappointing. European countries have been trying to increase wheat production and they had a pretty good crop last year, which they resolved to make go as far as possible. By limiting imports as in Italy, by increasing flour extraction as in France, by economies as in all countries, they have gone along thus far without buying large quantities on this continent. Germany has paid a bounty on wheat exported to Britain, and even Russia has dug up a little wheat for the British market for the first time since the great war. What effect certain movements in Canada and this country have had on the European buying cannot be told. But it is probable that the Canadian pool's holding policy and this country's legislation have been construed by European people as an attempt to put an artificial price on their bread. In addition to all of these influences there is another which can hardly be expressed—the disposition of all prices following such derangement as war to settle back to what is commonly but wrongly called a "normal" basis. The future is more uncertain than usual because it is complicated by interference with the natural movement of the commodity both in Canada and this country, and with stimulation of production and measures of economy in Europe.

NOT UNANIMOUS

UNDER date of February 9 the officers or legislative committees of the following organizations addressed a communication to the members of the United States Senate: The American Farm Bureau Federation, the Farmers' Educational and Cooperative Union of America, the National Cooperative Milk Producers' Association, the American Cotton Growers' Association, and the American National Livestock Association, and other organizations either members or subsidiaries of the above. The purpose of this communication was to call to the attention of the Senate and the country the defeat of higher tariff rates on sugar, blackstrap molasses, casein, hides, fats and oils; and to give the impression that farmers are in favor of the higher duties proposed on these commodities. Does this communication properly represent the ideas of farmers about these tariff rates? We doubt it in three of the cases named in the memorial.

We believe that most farmers are not in favor of a higher tariff on sugar, as they produce none and cannot see the wisdom of taxing all farmers and all consumers for the advantage of a comparatively small number. We believe that farmers are divided as to a higher tariff on blackstrap molasses. Many who are feed buyers are squarely opposed to it; many who are corn growers are in favor of it. Nobody knows which group is the larger.

We believe that most farmers are not in favor of a tariff on hides since it must be accompanied by tariffs on leather, harness, belting, shoes and other products of leather. These farmers believe that they can lose more as buyers of these products than they can gain as sellers of hides.

We may be right or wrong in our conception of the opinions of farmers. So may the committees and officers of farm organizations protesting to the Senate. We leave it to the crowd, which has never been polled on these three things. With the expressions of the others we believe farmers to be in accord.

New Jersey Farm Comment

By G. W. HARRIS

LAST Friday I attended an annual dairy banquet in Newton with 250 dairymen and wives who were members of Sussex county cow-testing associations. It was a hungry group that entered the dining room of the well-known Cochran House, famous for its good meals, but that hunger soon subsided and with Professor Birnes leading the singing smiles and good cheer were abundant.

This enthusiastic meeting reflected a year of successful herd improvement work in the county. Joseph C. Jones and George R. Kennedy, testers in the two associations, reported the high herd for the year in Association No. 1 was owned by G. S. Katzenstein. The average production for the herd was 10,410 pounds of milk and 353.9 pounds of butterfat, while the average for that association was 8,549 pounds of milk and 294.9 pounds of butterfat.

The leader in Association No. 2 was Stanley Roberts with an average herd production of 12,331 pounds of milk and 429 pounds of butterfat. The average for that association was 8,947 pounds of milk and 309 pounds of butterfat.

"If all the cows in New Jersey produced as well as the cows in Sussex county cow-testing associations it would take only 51 per cent of the present cattle to produce the same amount of milk in the state," J. J. Perry, extension dairyman in New Jersey, told the members.

E. M. Flitts, who is in charge of dairy extension work in Pennsylvania, said that cow-testing associations are fact-finding organizations, and that accurate information in studying the economics of the dairy business is necessary for progress.

In discussing the prospects for dairying in the future, he pointed out that the price of milk is influenced by surplus butter on the market and that the present surplus is due to less consumption of butter during the past year. The fact that less butter is being eaten has been laid at the door of unemployment, and although the decrease in consumption per person is small, the total amount is of great importance to the industry.

What is the relation of "oleo" to the dairy business? Although much blame for the butter surplus has been placed on increasing amounts of "oleo" being used, this is not entirely true. Increase in consumption of oleomargarine in 1929 was not comparable to normal increases in past years. That under the present conditions we cannot export dairy products and that we must meet changing conditions from a domestic standpoint, was explained by Mr. Flitts. High prices for dairy cattle during recent years stimulated the raising of more animals until the 1930 prospects show an increase over the past year of three per cent of dairy cows and six per cent of dairy calves.

During the 1920 to 1930 period production per cow in the United States increased 1,000 pounds. Judging from this rate of increase in milk production there will be no need for an increase in the number of dairy cows to care for the demands of the population.

Mr. Flitts also spoke of efficient production from the standpoint of roughage grown on the farm. "The cows which return no profit from a ton of roughage must be eliminated," he said. Also "we must figure on the crops which on an acre basis can feed to the herd will produce the most quarts milk."

CLASS of 94 graduates in the twelve-weeks short courses in agriculture at Rutgers University returned home last Friday to put into practice the better methods which they had learned in their dairy, fruit, vegetable and poultry studies. The fact that this was the largest graduating class since 1923 and that an increase of 86 per cent over the enrollment of last year is encouraging, for it means that agriculture is looking upward.

These practical courses are outlined to meet the needs of farm boys and girls who cannot spend time and money for two and four-year college training. Of the students this winter 75 per cent had five or more years of farm experience and at least three years of high school education, while the average age of the group was 19 years.

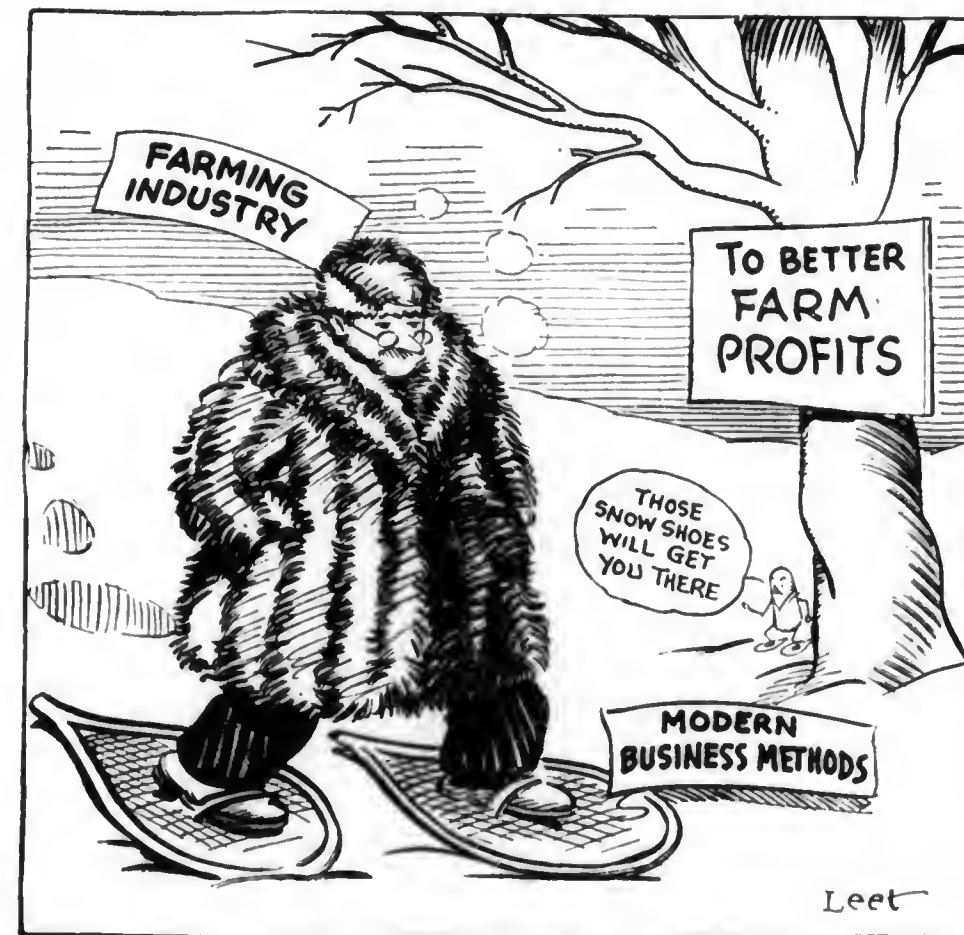
It is natural that most of these students are drawn from New Jersey farms, yet the short courses attract men from other states and countries. There were three German students enrolled, one from Mexico and one from British West

Karl Otto Pfau, who left Germany one year ago, was honor man in the course in dairy farming. Otto is a graduate of an agricultural school in Germany and has had several years' experience on a German livestock farm.

Ernest Fetzner, another German student who for the past year has been working on a poultry farm near New Hope, Pa., took honors in the poultry course. He is also a graduate of a German agricultural school and has had seven years' experience in poultry work.

Other honor men were Frederick G. Manwaring, Wyckoff, N. J., in dairy manufactures; Joseph W. Doremus, Towaco, N. J., in fruit growing; and Edward Noller, Freehold, N. J., in vegetable gardening.

F. G. Manwaring is a chemist and took this short course in dairy manufactures to aid him in some research work on dairy products. Mr. Man-



Mushing On

waring's son graduated from the College of Agriculture in 1922.

The W. C. Thompson cup, awarded to the best poultryman, was won by Howell Samuel Brown, Purcellville, Va. The Komow trophy for the best fruit grower was awarded to James Leach Laws, Park Ridge, N. J., and the John W. Bartlett trophy, given to the premier showman of dairy cattle, to Israel David Phillips, Lambertville, N. J. Wallace W. Apgar, East Orange, N. J., received a set of books on Dairy Farming presented by Director F. G. Helyar to the student in dairy farming for the best report on assigned problem.

Several other cattle fitting and showmanship awards were presented, all going to New Jersey boys.

Augustin Serment of Mexico took his second short course at Rutgers this winter. Last year he selected the course in dairy farming and this winter he took dairy manufactures. Serment plans to return to Mexico where his father owns a large ranch and develop a dairy to produce high quality milk.

At the annual banquet of the E. B. Voorhees Agricultural Society, an organization of short course graduates, on Thursday evening officers for the coming year were elected. These are: President, J. Paul Jennings; vice-president, Clarence M. Allen, Flemington; recording secretary, H. Malcolm Adams, New Brunswick; corresponding secretary, F. G. Manwaring, Wyckoff, and treasurer, Carl Maple.

BEGINNING on February 17 twenty students will spend a week of practical work in a milk testing course at the College. Following this, beginning on February 24, is another one-week course in flower gardening. Flower and garden clubs have reacted very favorably toward this course

and already between 75 and 80 men and women have enrolled. During that same period a course in turf management, outlined for golf greenkeepers and estate managers, will be given to a class of 40. Fifteen students have signed up for the two-weeks course in ice cream making which opens on February 24. Professor Frank G. Helyar, director of short courses, is very much pleased with the increasing enrollment in short courses at Rutgers and believes that it is a sure sign of better agricultural conditions.

WARFARE on New Jersey mosquitoes, new and effective methods of control, were discussed at Atlantic City during a recent meeting of the New Jersey Mosquito Extermination Association.

Among the late methods mentioned was a new larvacide which will kill the larvae and pupae of mosquitoes without injuring the vegetation, fish or water. The petroleum oils used in the past have often been objectionable because of their toxic effect on vegetation, fish and water fowl.

Extermination of the salt marsh mosquitoes is one of the big problems in New Jersey. Since this work first started in 1900 nearly 5,800 miles of salt marsh ditches have been dug by mosquito fighters.

Delaware Notes

ACCORDING to W. T. Derrickson, director of the State Bureau of Markets, the total acreage devoted to farm crops in Delaware in 1929 was 3,000 less than in 1928, but the value of the crops produced in 1929 was \$16,485,000 as compared with \$15,150,000 in 1928. Corn led in total value, with wheat second. The same acreage of white potatoes (7,000) as in 1928 produced 112,000 bushels less in 1929, but the value of the 1929 crop was almost double that of the year before as the 1929 farm price averaged \$1.60 per bushel against 75c per bushel in 1928. Sweet potatoes showed an almost comparable increase in value, with an increase in acreage also. Tomatoes, sugar corn, peaches, grapes, strawberries, cantaloupes, watermelons and asparagus all showed a gain either in production or value, while apples declined in 1929. Soy beans gave a lower yield but better return.

GOVERNOR BUCK has given his hearty approval to the recent move on the part of the Federal Farm Board to conduct a survey of all cooperative units in Delaware, along with eleven other northeastern states. He has asked the Department of Agriculture and the University of Delaware to assist the Federal Farm Board in every way possible.

SPEAKING from Washington, D. C., over the National Broadcasting system recently, Dean Charles A. McCue, of the School of Agriculture, University of Delaware, described agriculture as a complexity of many industries "that may or may not have very much in common except the soil." And as for farm relief, he declared that what is good for one group of farmers may be injurious to another. "When the Federal Farm Board seeks to put the California grape grower on his feet, it deals the grape growers of my state a blow in their solar plexus. Putting the hog grower of the Corn Belt upon his feet may mean driving the swine industry in other regions into the doldrums." He also held that the slothful, the ignorant and non-progressive farmer is being pushed to the wall. "We want our inefficient in agriculture to find their useful niche in industry," he suggested. "We need an infiltration of mechanical industry into our agricultural communities. The industry called agriculture needs more consumers, not more competitors. It needs not more land under the plow, but less land; not more farmers, but better farmers; not more bushels of crops, but more efficiently produced bushels of crops."

INCREASED acreage of sweet clover in Kent county, Del., is due to the steadily increasing use of this legume for a cover crop in the extensive apple and peach orchards of the county, according to County Agent Russell E. Wilson. Originally it was introduced as a pasture crop. Mr. Wilson also reports a steady increase in alfalfa. R. B. T.



These piles of long sticks were cut for wood. They are from the crooked, short-stemmed, unsound trees. This is the proper way to prepare wood today unless cutting has been contracted, when it may be necessary to cut to one length and cord the pieces.

How's Your Woodpile?

By C. R. ANDERSON

PENNSYLVANIA'S earliest settlers at Marcus Hook and Upland on the Delaware River used wood to cook their meals and warm their log huts. For years and years wood was the only fuel known and used within the state. Great piles of it were needed. All winter long—and every winter—farm wagon and sled drew great loads to the farm home, to the homes and places of business of the nearby villages and towns. A threatened wood famine was just as serious as a food famine.

The Penns were taking a long look ahead when they specified in their early deeds of land to the new settlers that the latter must keep one acre in every five of the land they received in timber forever. Without any question they were thinking a large part about fuel.

Wood has continued to be an important fuel all down the twenty-five decades of Pennsylvania history. Even in the last half century in spite of hard coal, soft coal, natural gas, artificial gas, oil and electricity it has continued in heavy use. At the present time, not far short of one million four-foot cords are burned annually within the state. It may go even higher than that—no one knows exactly.

Now a million cords of wood is "some pile of wood." The average farm lad of the wood-burning counties of the state will bear me out on that. There's all that stuff to fall, and cut up, and haul, and split, and stack. By the time the year's supply is prepared, by Christmas perhaps, or a little later, he begins to hate the sight of a stick of wood, and to wish dad would get something else to burn.

Why are so many still burning wood? Or rather, what are the conditions which encourage many to continue its use? One thing is its relative cheapness. It cannot hold its own in use where natural gas is abundant and consequently low in price. Neither can it do so in counties where there are one or more open soft coal banks in every community, at which coal can be purchased at a very low price—very little above the cost of mining.

The Bradford county farmer visiting Indiana or Armstrong counties looks in vain for the filled wood house or the large stack of wood so familiar to him. He and his neighbors of the North Tier, just those who live within his county cut and burn nearly 70,000 cords of wood per year, while Indiana and Armstrong counties combined do not cut and burn over 500 cords each year. They have the soft coal; Bradford does not. Her people find it cheaper to cut and burn wood—which they own for the most part—in their own woodlots—rather than to buy coal.

Custom plays a part in its continued use. Many women who have cooked with wood all their lives dislike exceedingly to start over again, learning how to use any other fuel.

There is no denying the fact that wood makes a pleasing fuel. In the hot days of summer, the farmer's wife lets the kitchen fire go out as soon as she has enough hot water to wash her dinner dishes. The stove cools off quickly after the wood fire is out. A little paper, some small pieces of dry wood for kindling, a few larger dry sticks to give it a good start, and the stove is all ready to cook supper.

There was a time when the more common practice in preparing firewood was to cut the material to approximately a four-foot length in the woods. But with the increasing use of the buzz saw, it is now somewhat unusual to find a Pennsylvania farmer who follows the old time plan. Today the pieces are left just as long as they can be handled conveniently in hauling and placing on the saw frame. The hand labor is being reduced to just the lowest point possible and the machine labor increased, which is nothing if not common sense. Wood should be prepared well in advance of the

time when needed. There's a reason. Green wood carries a great deal of water. When we burn green wood, part of the heat generated is not available at all for cooking or heating, but is used in driving out the water held within the green wood. If we let the wood remain out of doors where the sun and the wind can pull this moisture out of it, we then have available for our use that heat which would otherwise be used in getting rid of the water. Three to six months drying is usually sufficient to bring the wood to an "air-dry" condition.

How to Dry Wood

A word might be said at this point about hastening drying in case we run out of dry wood. Wood will dry most rapidly if split fairly fine and then piled loosely, clear of the ground, crib fashion, first a layer one way, then a layer the other way to a height low enough that the pile will not topple over. Keep in mind that the sun and the wind do the drying job for us, and that we want to place each stick so that these two can exert their greatest influence on the sticks. I can hear some one say, "That's a lot of trouble, and it will take a lot of room to spread out a little wood." Yes,



One hundred and twenty-five thousand farmers in Pennsylvania burn some wood for fuel. They cut, and use, or sell about one million standard cords each year.

but it may be preferable to the alternate of drying green wood in the oven of the kitchen stove, as I have seen done many times. Wood will dry faster out of doors than piled within the wood house. But if the house is fairly well ventilated, and the wood is not ranked too solid, it will come to an air dry condition.

Poor ventilation of the wood house favors the development and spread of wood-destroying fungi; but these can be ignored commonly, since wood is seldom carried longer than just the second year after cutting. There appears no good reason for any farmer cutting and storing wood two years or more ahead of his needs.

Is there anything wrong with storing wood out of doors? Only that the product takes on moisture again in times of rain or snow. There should be a

small supply, at least, under roof. The average mixture of kinds of wood which the farmer gets in clearing up the tops from a lumbering job, or in doing a piece of thinning work, makes a fairly good run of fuel. Occasionally, to be sure, there will be kinds in the pile whose heat values are low, but such material will not commonly form a large percentage. But that raises the whole question as to what are the fuel values of the various kinds of wood.

The weight of the air-dry wood is an excellent indication of the heat units it will produce on burning. This holds very, very closely for the hardwood or broadleaf trees. The North Tier farmer knows that his beech, birch and maple make good firewood, and if he doesn't know that the trembling aspen and basswood are low in heat value his wife will make it known to him if he provides no other fuel when she finds she has to feed the stove so heavily with wood that she can get little else done in the kitchen.

When it comes to a consideration of the coniferous trees, we find air-dry weight is not as close an indicator of heat value. Many of these are resinous, some so strongly that we speak of them as "pitchy." The resin yields far more heat for its weight than the usual wood structure.

Black or yellow locust has the highest fuel value of all our Pennsylvania woods. It is followed closely by hickory and white oak among trees which grow to large sizes, and by dogwood, hornbeam and service berry among those of smaller sizes. The poorest of all are basswood, aspen, loblolly, yellow poplar, white pine and hemlock. None of the other oaks is equal to white oak in heat value. Of the trees of the beech, birch and maple forest of our northern counties, the black birch stands the highest, very close to white oak; white ash is almost as high; beech and yellow birch have the relative position, a little way below these other two; and red maple and wild black cherry are close together, having only about eighty per cent of the value of black birch, or about seventy per cent of black locust. It will surprise some to know that red maple is as high in fuel value as sugar maple.

By far the greater part of the firewood burned within the state is used in kitchen ranges. For this purpose it is split into pieces which contain as much material as the average one to two-inch half inch round stick. The farmer who pursues the sensible course lays back the rough knotty pieces which are difficult to split to use in the furnace or for use in the fireplace wood. The latter has grown greatly in demand during the past ten years. There are towns within the state where it is well-nigh unobtainable. And what is to be done? The answer is, be patient and open your place with its burning logs. We enjoy it just as much as the early Pennsylvania settlers of ours enjoyed it, and a half century ago Edgar A. Guest wrote words truly descriptive when he said in his poem entitled "A Log Fire":

"You may boast a wood fire's splendor, and say you're a fancy dresser; And I'll grant an open fireplace is as cozy as it can be; And I'll grant the spit and crackle of the wood music sweet; As you watch the sparks come flying from the round your feet."

In some woodlots numerous trees should be moved for the good of the woodlot. To give the remaining trees a better chance to make a crop. What more fitting end for them than to add cheer to the romantic atmosphere of the fireplace or power to the essential cook stove. And the fact that the hardest labor of woodcutting may now be done by machinery detracts no measure from the joys of the ancient wood occupation of cutting wood.

A Thinking Job

By Fisher Ames

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"FAIR! Well, I reckon you'd say any warnin' was fair to that—" and King delivered another string of blasphemous epithets. "We-all 'll make our own law an' order round yere without any hound-like that Tittle pesterin' us."

King staggered out to the end of the pier to see Toots off. He was quite affectionate at parting and tried to throw his arm around Toots' shoulder, but the latter stooped to slip the sharpie's hawser and King almost fell overboard.

"You're a nice young feller," he said, recovering his balance. "The boys don't like new faces round yere, but I say you're a nice young feller. I'm gonna give you a tip. Don't go a strollin' over these yere flats no matter what for. The boys are mighty techy an' sorter apt to use a rifle bullet as a no-trespassin' sign. See. I'm a-tellin' you cos you're a nice young feller."

"You're all nice fellows, too," said Toots. "A fine lot, I reckon."

"Well, that's so. They don't make 'em much finer, but it don't do to go pesterin' us."

The interview with King put another black mark in Toots' book against oystering. Toots held the typical laborer's view of the law. It was clumsy, slow, often partial, he thought, but it was to the advantage of everyone to keep to the letter of it, and its officers were men to be obeyed and, in the main, respected. That King and his friends should make a coffin for the warden and write him a letter concerning it, even as a joke, did not seem humorous to Toots. Without proper law and order and an official whose power to enforce it was unequivocally accepted there was a poor outlook in this tide-water section for a small lone investor like himself.

So far as the actual work went Toots found the life vigorous and varied, satisfying to his craving for activity in the open air, until he was called upon to do night-tonging. That was more than he had bargained for, and when, after supper one evening, he was brusquely requested to get into his slicker, he felt rebelliously.

The men, finding him habitually quiet and amenable, had set Toots down as rather a blank so far as character was concerned, "a two-spot," as they phrased it. They knew he was a waif from another part of the state and that he had lost his job at Tigert's. The fleet had a good many young incompetents, or worse, who had drifted into the life because of its moral and legal laxity. The specially close-mouthed ones, like Toots, were suspected of having something in their past which they were particularly anxious not to reveal. Hence Bartlett's manner toward Toots had grown more and more domineering.

"Git a move on ye," he said in his most bullying tone. "Spect you're goin' to spend every night a-snozin'."

Toots put on his hip-boots and slicker in silence. The three of them left Eden tossing fretfully on his bunk, and stumping through the greasy marsh glass embarked in the long-boat, each pulling a pair of long but light ash sweeps. One of the big bateaux, attached to the stern by a tow-rope, followed them sluggishly.

CRUMB set a rag of a sail presently and they sailed on their oars while the wind wafted them down the narrow end of the bay and up a creek between two blocks of yellowish marsh. Emerging from this another wide body of water faced them. Crumb lay south by southwest, and Crumb laid the oars in that direction. The surrounding marshes were too low to be feasible as watch-house stations. The nearest shanty was a couple of miles distant, its light twinkling like a feeble little star. The main fleet lay off to the eastward, marked by a group of riding-lights that were beginning to be dimmed by the mist rising from the water.

The tide was dead out when Crumb lowered the sail and they floated at rest alongside a high flat like a mass of cheesy dough, down whose banks trickling streamlets of belated water made sibilant noises. It was an old bed, thickly strewn with shells, many of them primes, and the long handled tongs were unnecessary. They gathered the oysters with gloved hands, culling as they went, each man packing his own big wicker basket to the bateau, moored close to the bank. It was not so hard as the ordinary day-time stint, but Toots worked with a chip on his shoulder. He almost started up when Bartlett requested him to dump his shells more quietly.

A moment later Bartlett said, "We-all uv' been in hard luck lately an' got to hustle. If the rest of the boys knew we was night-tongin' they'd git jealous an' pitch in too, an' then the market 'ud go bloomy."

Mark never spoke at all, even when addressed. He worked in a mechanical way, as though mesmerized, and occasionally stopped and stared down at the mud in a kind of trance, from which he would awaken with a start. Apparently he would have gone on gathering shells and dumping

them on the heap in the bateau all night, regardless of whether the boat could hold them or not, but when Bartlett announced a full load he silently took his place at the oars.

He did not join in the low-voiced conversation between Bartlett and Eden when they had returned to the shack, but took his Bible to the table and began to read. When Toots' sleepy eyes refused to stay open any longer Mark was still sitting hunched-up over his book.

Work next day was light and Toots had a foreboding that this was not so much due to what had been as to what was to come. Sure enough, after supper Bartlett began to hunt for his boots and slicker. At that Mark raised his head and spoke, and his voice was oddly hollow.

"Not tonight, boys," he remonstrated. Both Eden and Bartlett pitched into him verbally with a violence that surprised Toots. Eden thumped his pillows in a fury, declaring that the whole business was at stake, and they all might as well get out of it now for good if his brother refused to put his shoulder to the wheel. In the end they beat down Mark's resistance and with an unhappy air he pulled on his outside garments.

To ask any questions would, Toots knew, be simply a waste of breath. He felt there was something back of this night's work other than the reasons given in his presence by Eden and Bartlett. He believed Bartlett was lying when he said a lot of others might compete with them if they advertised what they were doing. The idea of wholesale rivalry was nonsense and didn't account for these secret, soft-footed methods.

Toots ruminated over these points as he trudged about the flat, mechanically culling the shells. Once he thought he heard a sound out on the water and pausing to look, saw Bartlett arrested in a pose of attention, his hand cupped to his ear, peering into the mist-laden darkness. The



The Cheerful Plowman

"PIG! PIG! PIG!"

NO pig of real and royal blood should have to live in dirt and mud like pigs of old. I say; back in the crude unlettered times when people talked in cents and dimes, in nickels, day by day, then people felt that every hog should wallow in the mire and box, in slush up to his neck.

"That slush is great for growing swine, to them it's like the best of wine," my grandfather said, "My Heck!" My Uncle Remus Flint-ridge Squire was sure that pigs would thrive in mire, in cold and oozy slop; said he, "That makes them sturdy boys, not dainty pigs like woolly tows, it makes them full of hop!" It builds their gizzards and their lumps, it makes them strong in legs and tongues, it makes them rugged lads; the pork from pigs that waded around in spongy, wet and chilly ground is best—so said our dads."

That stuff's bunk, it's out of date, he was a poor untutored skate who pushed ideas like that; he did not know his pigs and swine; he could not tend these hogs of mine, he testified through his hat.

My pigs have clean and airy stalls with white and clean and finished walls; they do not wade in junk, they do not chill on rainy days, and wallow in a torpid haze with joints all stiff and bunk! They're clean as school-boys all the time, they are not coated thick with grime, they are not caked with mud; they keep that school-girl look as such, they have the skin you love to touch, they show their royal blood.

That old time guff of health in dirt, of strength in filth, I must assert, was twaddle, nothing more; good sanitation for a pig counts just as much and just as big as for a king or corps!

J. E. T.

sound was not repeated. Probably a leaping fish had caused it. Bartlett soon went to work again, but Toots knew that the fellow had received a scare, and decided that he would find out once and for all what the real reason was. Things had reached a point now where they had to show him. He suddenly struck up a song at the top of his clear, carrying voice:

"Whar de moon am shinin' low
An' de whippoor-will's a callin',
Down among de shugar-cane."
An oyster shell whizzed viciously by his head. Oblivious, he began the

next stanza:

"Dar's whar my girl's a-waitin',
An' her eyes am soft wid love
Fo'—"

A flock of shells that were not soft splashed into the mud, accompanied by the spitting of running feet as Bartlett and Crumb came toward him. Toots took the offensive instantly.

"What's the matter with you, chucking things at me that way?" he said, lifting his voice.

"Shut up! Close your trap!" Bartlett hissed furiously. "What d'you think this is, an op'ry house?"

He glanced about apprehensively. Crumb walked up to Toots until the latter was forced to take a backward step. "If you want a bash over the head keep on with that racket," he said in a strange voice. And suddenly his right arm curved over in a powerful sweep that knocked Toots' hat spinning as Toots ducked just in time to escape the hard bunch of clenched knuckles.

Bartlett closed in on his other side. It began to look as if he were in for a rough time, but thanks to Jack Rose he would not prove such easy picking as they expected. He retreated quickly, squaring off, his gaze watchful.

"If everything's all right what are you afraid of a little noise for?" he demanded.

The two were saved the trouble of answering this by an interruption from an unexpected quarter. A shout came over the water, carrying even to Toots' ears a threat in its querulous rasp. Crumb and Bartlett turned with guilty abruptness and darted toward the point where their boat was moored. Toots saw the whole game now. They had been poaching; the bed did not belong to the Crumbs.

HE was innocent of intention, but the owners of the bed would not believe he was not as red-handed as his companions, and he had learned from others beside King that, if caught, it was quite within bounds that he would be knocked on the head with an oar-butt and chucked into the channel. Instinctively he fled in the direction of the long-boat.

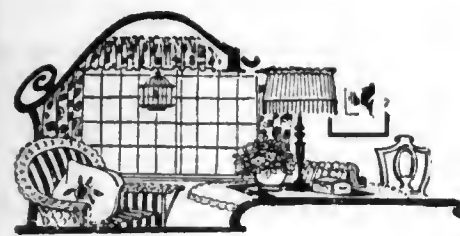
The two men made no hostile gesture as he tumbled aboard. Undoubtedly they were glad of the extra pair of oars. Crumb moved aside to let him pass to the bow seat and they got under way, coming up with a jerk the next instant as the tow-rope taunted. A slash of Bartlett's knife and they were free of the bateau, which was left to drift off with the tide.

The advantage was with them in that the other boat was on the opposite side of the flat. Crumb appeared to be in a trance again, but he pulled a powerful oar. As soon as they were in the swing of the current Bartlett produced a handful of rags and muffled the oar-locks, giving the directions for their course meanwhile: "Through Brant Gut, west Five Point Shoal there'll be flood enough now an' round by Old Creek."

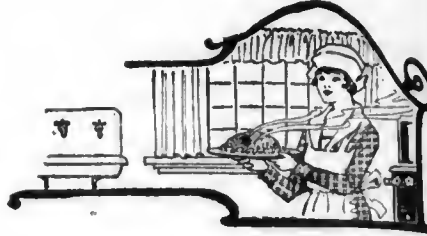
From the other side of the flat came a series of loud, widely-spaced explosions that choked down to a blurred, rapid thud-that-thud. Their pursuers had discarded their oars and started the engines of their motor-boat. Toots felt the long-boat quiver as Crumb and Bartlett threw more vigor into their stroke. He caught the pace and with the three pairs of blades thrusting in perfect unison they swept down with the tide. They rounded the corner of the flat with the agile swirl of a shark. The blood began to thrum in Toots' head. A rising wind cut along under the low clouds obscuring the sky, whistling mournfully through the bending sedge and raising murmuring ridges on the water. There was excitement in the griminess of the game. Whatever the outcome Toots was through with the business for good, and his mood fell in responsively with the dramatic setting of this, the final scene.

The motor-boat cut a swift arc around the flat like a hound snuffing hot on a trail. With uncanny intelligence it chose the channel leading to Brant Gut. Bartlett began to whine through his clenched teeth, cursing his luck and the men he had robbed in a sing-song undertone, like an impenitent but frightened boy when he is being punished for some meanness. One thing fell out in their favor, slight though it was, and that was the caution with which the motor-boat advanced as soon as it was in the gut, with occasional pauses to examine the pockets in the marshy walls.

(To be continued.)



The Farm Home



More About Birds

By HEPSY NEFF

MIGRATING birds are now returning to sections which gave them a warm welcome last year. Our clean fence rows may give us a sense of pride and skill but the ragged hedges and brush which we grubbed out or cut back may send birds like brown thrashers, juncos and wrens to the fields of our less tidy neighbors. With the first warm days of spring moths and every sort of flying insects begin to crawl out of winter quarters and never is the help of our keen-eyed, swift winged friends more timely and effective.

The zero temperatures of the winter just passing have taken large toll of insect life and the first comers will be less vigorous than usual. Under such conditions any friendly advance we can make toward our bird friends will give large returns. A life-long bird lover suggests bringing stems of shrubs together about four feet from the ground and binding them tightly with a bit of wire or strong cord, thus making a foundation for a nest and yet concealing it by the leafy foliage still reaching several feet above it.

Twice have I tried this experiment, once in a lilac bush and once in a bush honeysuckle and the sharp "tseep, tseep" coming from somewhere later, kept me guessing a long time before I found the brown thrasher's nest I had made possible.

Later snow falls will still bring the need of help for such early friends as robins, wrens, bluebirds and whitethroats. Feeding any birds soon means feeding English sparrows and our song birds will not stay anywhere long where these pests are plentiful. The bluejay is another enemy of song birds but the "worst enemy, in some sections, is squirrels. During a recent heavy snowfall of ten days I fed a large number of birds including English sparrows and they all ate together freely until a gray squirrel came to my table and took possession. The day after his coming every bird disappeared, even the English sparrows, but only the squirrel of feed took him away.

I have seen a pair of bluejays dart, screaming, toward a squirrel that came near the tree in which I had built a nest, literally driving the squirrel out of the ground. I have also seen a robin kill a newly hatched young, torn to bits, and the nestlings killed and the only possible explanation I had as to the murders was a pair of squirrels. After these experiences I am ready to accept without question the statement of a life-long bird lover who keeps a standing offer of a bounty for the head of any cat, weasel or polecat who kills a bird or squirrel found on his ground.

He says: "We can only attract birds permanently as we are able to protect them from harm. Even the increase of English sparrows always means the decrease of all other birds." We may have the best of conditions for attracting birds and having their help against the insect pests in our gardens and orchards, but if we want this help we must work for it. A list of farm bulletins will show a surprising amount of up-to-date information waiting for our requests and a postal card will bring them. Write to our Department of Agriculture, Washington, D. C., and ask for the bulletins you want by name or number.

Appetizing Dishes for Cold Days

GOLASH:—In the bottom of baking dish, place a layer of sliced uncooked potatoes, then a layer of raw sliced onions, next a layer of cooked rice and lastly a layer of one pound ground round steak. Over all pour one quart of canned tomatoes. Season each layer with salt, pepper and dot well with little cuts of butter.

The depth of each layer may be varied to suit

family likes. We are three grown-ups and three children and with one pound of meat I use inch layers of the other ingredients. By using two medium sized baking pans, you can make enough for one bowl next day. It is good as new when warmed over.

Spanish rice:—One pound hamburger, two cups tomatoes, two small onions chopped, two cups cooked rice, one teaspoon salt, pepper. Thoroughly mix all the ingredients and bake in hot oven for one hour. If your tomatoes are quite juicy, no further liquid is necessary.

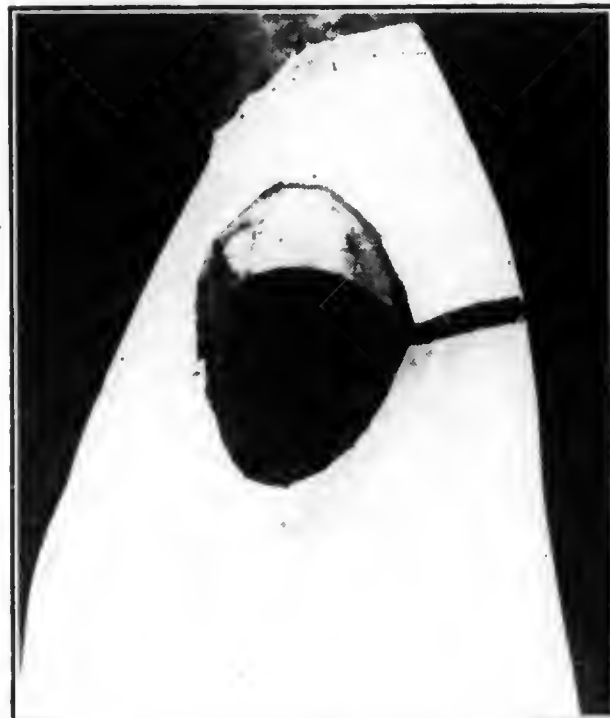
With either of these two recipes a green salad, bread and butter, milk to drink, and a simple dessert may be used to furnish a balanced meal that is economic and easy to prepare.

Mrs. C. C. Garey.

Shoulder and Under Arm Balance

A DRESS that does not hang properly from the shoulders never looks well. On rather stout or on round-shouldered figures alterations sometimes have to be made in a foundation pattern before the material is cut. The illustration shows how this may affect the shape and size of the armhole unless special attention is given to it.

In illustration A the back was raised at the shoulder seam so that the shoulder line



A—Method of balancing a foundation pattern by taking a tuck in the front and slashing back.



B—Method of balancing dress at shoulder and underarm seam without altering size of armhole.

was kept in the original position while the dress was balanced at the underarm seam. The extra goods at the bottom of the armseye were trimmed out as shown by the dotted line and the size of the armseye remained unaltered. This change can be made after the material is cut, but all changes are best on a foundation pattern which then serves for future uses.

As the changes in illustration B necessitate cutting, they can be made only on a foundation pattern. A dart which has been taken in the front is equalized by cutting and separating the parts of the pattern in the back. These changes do not alter the size of the armhole. If the armseye is altered the sleeve will have to be altered an equal amount in order to keep the same relation between the edge of the sleeve of the armseye.

Detailed suggestions, with many illustrations, on fitting dresses and blouses, may be obtained by writing to the Bureau of Home Economics of the U. S. Department of Agriculture, which has prepared a helpful bulletin on the subject, No. 1530-P. It is free while the supply lasts.

Careless preparation of vegetables, especially over-cooking, is often responsible for the unappetizing results that find their way to many tables.

Plenty of vegetables in the diet are better for the family than tonics, for flagging appetites. Try serving one vegetable dinner a week and at least one green vegetable a day.

Maybe She Can Sew

By GERTRUDE S. STEWART

OUR recent story entitled "She Can Can" has brought a volley of letters from our women who like to do things. Some are seeking advice on learning to can. Others wonder why we tell them about such a good thing after it is all over. We want to help both sorts of inquirers. Last week we gave a few ideas helping those who wish to can.

And now we would like folks interested in contests to read about such a very exciting one when it is just starting. This one will not be over until May 31, so read on and then get your needle and thread. This is a wonderful opportunity for single individuals, or it offers a splendid club project.

One of the largest and best known manufacturers of lovely wash goods is conducting the contest and the rules are so simple that any one can enter—that is—any one who can sew. And Oh! but the spring materials are beautiful. If only I were not so busy, I'd like to enter this contest myself. The next best thing I can do is help you to hear all about it.

Many of you may have heard already. If you have not and are interested I will be glad to see that you have a copy of the rules and directions. The Grand Championship Prize is \$200.00. The entire United States is divided into four zones, each of which will receive its own first prize of \$100.00; second prize \$75.00; third, \$50.00; fourth, \$25.00, and forty-five additional prizes of \$10.00 each. Now isn't that exciting?

Then there are also special lists of prizes for the Juniors, for our school girls and the various girls' clubs. Whichever one you are most interested in we will be glad to see that you have all the details. Do not hesitate. Write today, addressing your letters to Home Department, Pennsylvania Farmer, 7301 Penn. Ave., Pittsburgh, Pa.

Making Souse

IF there is one task about butchering more disagreeable than all the rest, it is cleaning the feet for pigfoot jelly or souse, as some prefer to name it.

Last week I had the job thrust upon me. While I was fussing and scrapping (even tried scraping the obstinate bits with my eyes sighted) the razor lying on the table (don't let this out) and this out, they had put away at they had put away at.

Well, it worked and without soap lather at that I soon had the feet perfectly clean and I did not hear a word about a spoiled razor blade. Of course I had to learn how to take it apart to clean and then put it together again. Now I have a used blade ready for the next butchering.

For the benefit of those who do not know how to make souse I will give my recipe.

Clean the feet and cover with water and boil until the meat is tender enough to slip off the bones. Shred the meat into rather fine pieces. If the feet are off a young animal there should be about the right amount of broth when they are boiled but if they are from an old animal, water may have to be added as it boils away. Season with salt and pepper and add vinegar to suit the taste.

Pour into pans and set in a cold place to harden. Do not let freeze. Cut in squares and serve for lunch.

Do not use too much wax when polishing floors. A little goes a long way. Too much wax makes the floor slippery and collects dust.

Knitted garments should be washed carefully to prevent stretching and laid flat and smooth to dry.

Fitted Lines Are Popular

No. 6749.—Fitted lines and a practical reversible-closing are features of this design. The sleeves are comfortably short and neatly finished with a turned-back cuff. A tiny vestee squares the V-neck and a serviceable pocket trims the front at the right side. Cotton prints, gingham, linen or pongee may be used to develop this serviceable model.

The pattern is cut in four sizes: Small, 34-36; medium, 38-40; large, 42-44; extra large, 46-48 inches bust measure. To make the frock for a medium size will require 4 yards of 35-inch material. For vestee, 4 yards of 35-inch material. For collar, 1/2 yard 35 inches wide is required cut crosswise. To finish with bias binding as pictured in the large view will require 5 yards 1 1/2 inches wide. The width of the neck at the lower edge is 2 1/4 yards.

Price 15c, two for 25c.
No. 6753.—Dress for junior and miss. Cut in four sizes: 14, 16, 18, and 20 years. A 16-year size requires 4 yards of 39-inch material. For contrasting material 1/2 yard 39 inches wide is required cut crosswise. To trim with edging requires 2 1/4 yards.

Price 15c, two for 25c.
No. 6742.—This is an excellent utility style, suitable for light weight woollens, for crepe, velvet and also for linens, shantung and pongee. As pictured it was developed in brown flat crepe with stitching for a finish. The front and back sections are joined to the side portions under the stitched tucks, below which the plaits are formed, that lend fullness in graceful flare outline. The fronts are turned back in

wide revers or lapels outlining a vestee that squares the V-neck.

The pattern is cut in five sizes: 34, 36, 38, 40 and 42 inches bust measure. To make the dress for a 38-inch size will require 4 1/2 yards of 35-inch material. For cuffs and vestee of contrasting material 3/4 yard is required, cut crosswise. The width of the dress at the lower edge with plait fullness extended is 2 1/4 yards.

Price 15c, two for 25c.
No. 6740.—This model is made with surplice closing and a low placed flare. The raised waistline is featured, and is marked with soft shirring at the underarm seams. The sleeve also suggests shirring above the wrist. A surplice vestee, outlines the V-neck line of the front which is trimmed on the right side with a very broad flare revers. This is an excellent model for an afternoon dress. It may be made in canton crepe or crepe satin. Moore is also suggested. Dahlia colored satin with revers and facings of transparent velvet, and lace for the vestee is suggested.

The pattern is cut in five sizes: 34, 36, 38, 40 and 42 inches bust measure. To make the dress for a 38-inch size will require 4 1/2 yards of 39-inch material. To face the revers with contrasting material will require 1/2 yard 18 inches wide and cut crosswise. To underface the flounce, will require 1 1/2 yards of 39-inch material. The width of the flounce at the lower edge with fullness extended is 2 1/4 yards.

No. 6384.—Child's rompers. Cut in three sizes: 6 months, 1 and 2 years. A 1-year

size requires 1 1/2 yards of material 36 inches wide together with 3/4 yard of contrasting material.

Price 15c, two for 25c.
No. 6757.—Girls' dress. Cut in four sizes: 8, 10, 12 and 14 years. An 8-year size requires 1 1/2 yards of 35-inch material. For contrasting material 3/4 yard 35 inches wide is required cut crosswise. To finish with bias binding requires 3 1/2 yards 1 1/2 inches wide.

Price 15c, two for 25c.
No. 6387.—Vest portions finished with pointed lower edges, are outlined by jacket portions, finished with convenient pockets. A cost sleeve and round collar complete the upper portion of this style. The trousers are the usual straight model with side closings. Black velvet with vest and collar of white pique or corduroy will be an attractive combination for this suit. It is also good in two tones of brown tweed or flannel and nice in jersey weaves, or smart wash materials.

The pattern is cut in three sizes: 2, 4 and 6 years. A 4-year size requires 1 1/2 yards of 40-inch material with 1/4 yard of contrasting material for collar and vest portions.

Price 15c, two for 25c.
No. 6762.—Girls' undergarments. Cut in four sizes: 2, 4, 6 and 8 years. To make the set for a 2-year size requires 2 yards of 36-inch material.

Price 15c, two for 25c.
No. 6746.—Printed velvet was chosen to make this model. One could have flat crepe or taffeta. As pictured with collar and with or without sleeves the design is suitable for informal afternoon wear. Without sleeves or without sleeves and collar it may serve as a dress for a formal dinner or afternoon occasion. The short waist portions feature the raised waistline. A shaped panel and flare slide and back portions form the skirt. A narrow belt emphasizes the waistline.

This pattern is cut in three sizes: 16, 18 and 20 years. To make the dress for a 16-year size with collar and sleeves, will require 4 1/2 yards of 39-inch material. Without collar and without sleeves, the dress will require 2 1/2 yards. With collar and without sleeves the dress will require 3 1/2 yards of material. The width of the dress at the lower edge with fullness extended is 2 1/4 yards.

Price 15c, two for 25c.
No. 6738.—Printed silk in a small pattern of black and white is here pictured, with trimming of black crepe and a vestee of lace. The dress has new style features. The style is slenderizing. The waist portions indicate the raised waistline, and symmetric lines on waist and skirt portions are graceful and pleasing. The sleeve is fitted, and shaped above the wrist.

The pattern for this pleasing model is cut in eight sizes: 38, 40, 42, 44, 46, 48, 50 and 52 inches bust measure. To make the dress for a 38-inch size will require 4 1/2 yards of 39-inch material. The band facings and sleeve facings of contrasting material will require 1/2 yard 39 inches wide and cut crosswise. To make the vestee of contrasting material requires a quarter yard 39 inches wide, cut crosswise. The vestee of lace edging will require 1 yard 3 inches wide mired at the center. The width of the dress at the lower edge with fullness extended is 2 1/4 yards.

Price 15c, two for 25c.

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Home Atmosphere

THE child senses overtones of feeling in a home, feels atmosphere, and has a surprising discernment of the currents and undercurrents which run through the lives of the older members of the family. Children love the happy atmosphere. They glory in the feel of a house in perfect order, and appreciate it the more if they help to keep it so.

They love the cleanness of rooms kept shining, the smell of cookies baking in the kitchen, the melody mother plays at the piano. In their appreciation of such things as these, they encourage parents to do their utmost in the art of home-making. Marion Cossitt Brackin.

The school child's lunch box aids both health and grades if it contains nourishing, easily-digested foods. If a hot dish is served at school, egg sandwiches, celery, an apple, stuffed dates and oatmeal cookies round out the lunch.

"A man without mirth is like a wagon without springs, in which one is caused disagreeably to jolt by every pebble over which it runs."

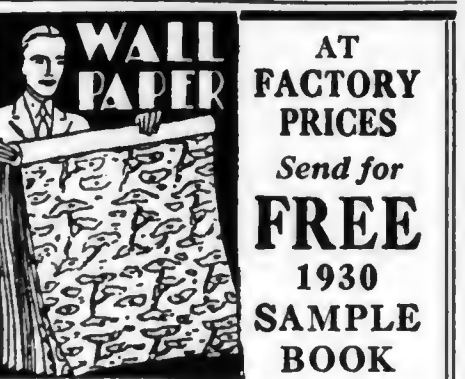
Henry Ward Beecher.



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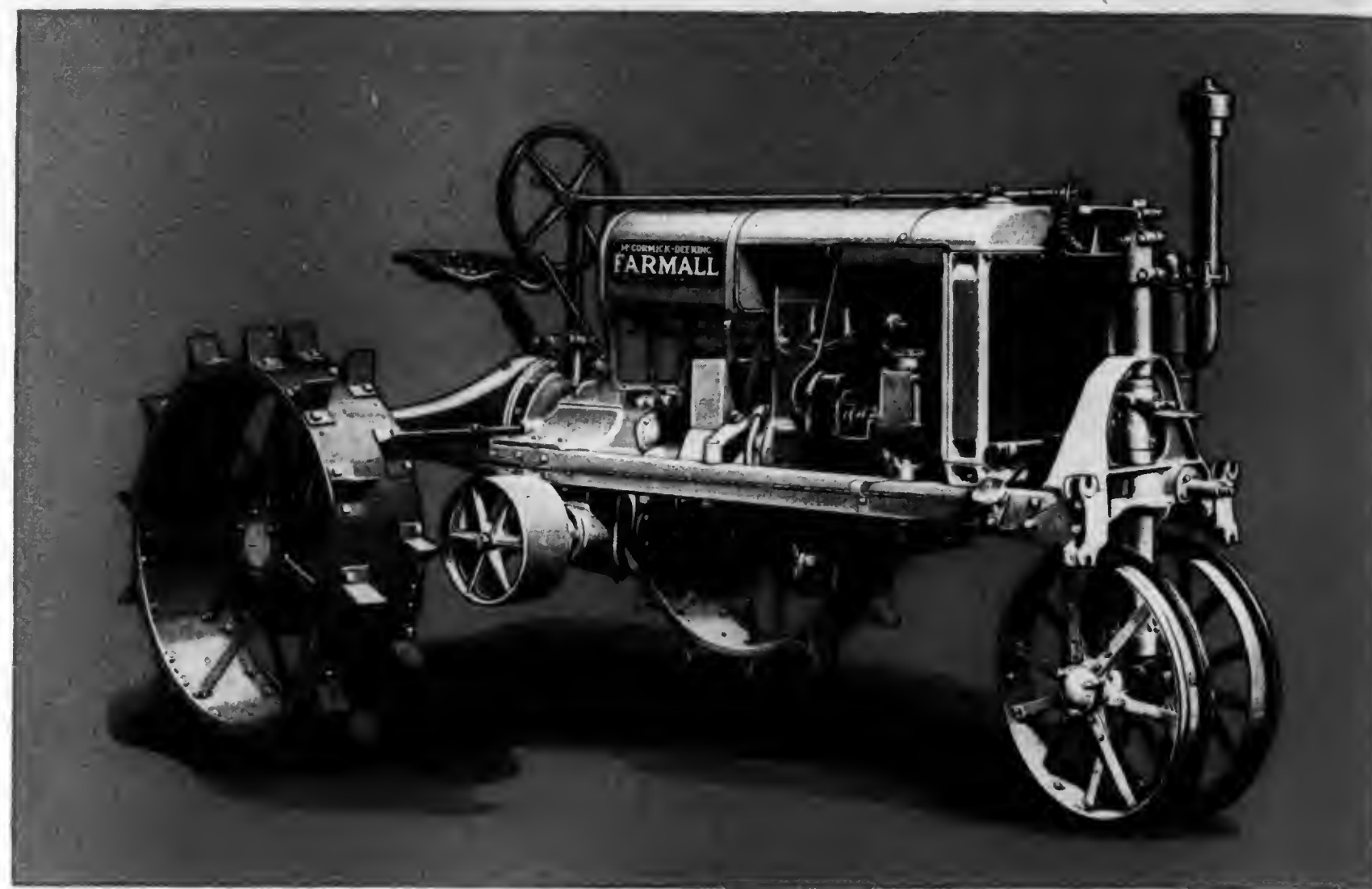
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 WEIGHT 3 LBS. 7 OZ. NET
 The Quaker Oats Company
 ADDRESS - CHICAGO, U. S. A.
 CEDAR RAPIDS, IOWA
 SALTATION, CANADA

Mother's Oats
are rich, flavory—
different from ordinary oatmeal

A premium coupon in every package

YOU can't serve Mother's Oats too often to please your family. They love its rich substantial flavor, steam-hot on frosty mornings. And they know the quick energy it brings benefits them in their work during the day. Now you will like to serve it, too. For cooking in advance is no longer needed. Quick Mother's Oats cooks in 2½ minutes the world's fastest hot breakfast. It's ready while the coffee boils. It is ready before the eggs. Cook it longer, if you wish—it is delicious when cooked quickly. Mother's Oats is most carefully milled to

retain all the rich flavor and energy, for which oatmeal is famous. The oats themselves are cooked for hours at the mills in order to save you cooking time. The only difference you will note is that they're rolled thinner.

It's the way the oats are milled

Mother's Oats are the selected Queen oats—a bushel yields but ten pounds of oats fine enough to bear this famous name. Every package of Mother's Oats contains a valuable premium coupon. The Mother's

premium catalog shows how easy it is to obtain fine Community silverware, jewelry, toys and other things you want.

Start serving Mother's Oats tomorrow. Get it today. Don't deprive your family of its wonderful deliciousness and fine nourishment any longer. At all grocer's.

Start saving today. And write now for catalog. Address: Mother's Coupon Dept. H-2, Room 1708, 80 E. Jackson St., Chicago, Illinois.

The makers of Mother's Oats also make Quaker Oats and Quick Quaker Oats, which you may have been accustomed to buying. They use the same care in selection, the same high standards of milling, that have made the name Quaker a household word.

MOTHER'S OATS Regular and Quick



BODY BY FISHER on these cars - and these cars only

No motor car buyer need sacrifice body quality to price. For, notwithstanding their definite and marked superiority, Fisher Body cars are obtainable in every price field. ¶ All the cars whose emblems you see above, also bear, forward at the lower right exterior of the body, the signature plate of Fisher Body craftsmanship—sign and symbol of authentic style, more luxurious comfort and greater durability. ¶ Fisher Bodies are mounted upon the greatest chassis in their various price fields—for, in point of reliability and brilliant performance, combined with low cost of upkeep, General Motors cars have attained the highest mechanical development. ¶ The emblem “Body by Fisher” appearing in company with the emblem of Cadillac, LaSalle, Buick, Viking, Oakland, Oldsmobile, Marquette, Pontiac or Chevrolet, is, therefore, double assurance, not only of a better car, but of a better motor car *investment* as well.

February 22, 1930

PENNSYLVANIA FARMER

(287) 19

The Farm Lease

THIS is the season of the year for drawing up farm leases, contracts, understandings—the season for “putting things in writing.” A great deal more important than these so-called contracts is the matter of getting two parties who will each hold up his end of the stick. Neighborhood usage is the safest kind of an agreement and a man with whom one is well acquainted is the safest kind of a tenant.

I believe the large majority of farm “contracts” are not worth shucks. Few tenant farmers can be bound by a contract. It is altogether rare and, so far as my experience goes, unheard of for a tenant to post a bond for the performance of his contract. A tenant may agree to feed all corn and oats and farm roughage on the place, but when the expedient comes about the feed is sold.

The fact is that the contract is very plain. But suppose the tenant has got himself into a tight squeeze financially, well, the landlord prefers his cash to the contract and off goes the feed that was to be consumed by livestock on the place.

No Contract for Mr. Jones

The writer once retired from the farm for twelve years for reasons of health. During those twelve years there were four tenants, sometimes under contract and sometimes not—those last few years no tenant could get a contract from this Mr. Jones! If a tenant is reliable there is not a whit of use for a contract and if the tenant is unreliable then a contract with him is just the same as writing a last will and testament for a man who owns nothing whatsoever.

If a tenant came and asked for a farm of which I was owner my first move would be to turn right around with him that very minute and return to the very spot from which he had started out. After a walk through the barn and about the place he had been farming I would know whether he were a tidy and systematic man or a sloppy one. Then by taking a look at his line of implements and the condition of his harness and supply of fuel at hand I would know whether he was foresighted and provident.

Business Habits

Before we talked business I should say that if a man desired to rent my farm we must first go to his bank and find from the cashier just how he had been accustomed to meeting his financial obligations.

It takes only a hand's turn daily to keep a place tidy. It takes only a bolt now and then or some other minor repair to keep implements the way they ought to be. An hour or two occasionally with awl and thread makes harness testify to the character of the owner just as baling wire, nails or bits of whang line him up as a makeshifter. At the bank the way you find a tenant has been paying others in the past is only the same way you can expect him to pay in the future.

With twelve years of renting in the past and at present farming our farm I should say the way to keep up the improvements and maintain fertility of the land is to run the farm yourself. I take it easier and don't expect to make so much money as if I delved in hard, but there isn't a man under heaven who can be found to take as much intelligent interest in my cows and in my fences and my gates and ditches as I, just I!

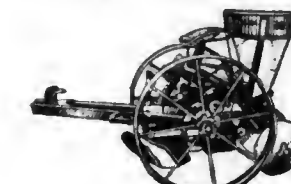
Thomas Jones.



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Oliver and Oliver Superior
Corn Planters give better stands



Grain Drills for every type
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ASK YOUR OLIVER DEALER

Better Seedbeds and Seeding Lead to Lower Cost of Producing Crops

From the time you start to work your land this spring, let Oliver Power, Oliver Plows and Tillage tools, and Oliver Superior Drills lead the way to lower costs of producing your crops.

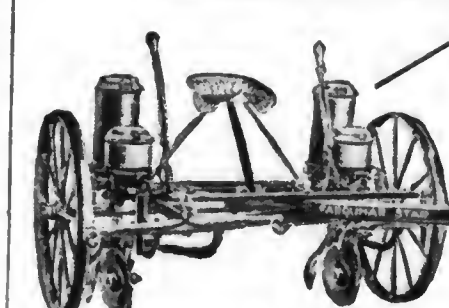
Oliver Plows—Walking Plows, Sulkies, Tractor Gangs, and the new Oliver Big Base—that turns under standing corn so completely that not a stalk shows—are each designed to do a better job of plowing, and are part of a line from which you may choose the plow that exactly meets your farm conditions of soil, crop, and power.

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Our new book, “Under the Oliver Flag—Bigger Crops at Lower Cost”, will show you what Oliver is doing today, and will give you exact information on the tools needed in your type of farming. Send coupon for your copy.

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FORD SEED CO., Box 38, Ravenna

THE YOUNG PEOPLE

How I Spend My Spare Time

If you want to get along in this world you must use your time. Lost time is never found again. I am not always on the job, but I try to use my spare time to the best of my ability.

But the subject on which I am writing is "How Do I Spend My Spare Time?" There are very few people who do one thing in their spare time. As any other farm boy I have a various supply of different odds and ends of work for my spare time. I have my daily chores which take place from seven to eight thirty in the morning. Of course I have school to attend.

When I arrive home I work from four thirty to six. I will now try to explain these pastimes in order. I awake about six thirty, hurry and dress, wash and comb. By this time it is a quarter of seven. With a refreshing breakfast I am ready to do my favorite pastime—trapping. I have taken great interest in this work. This is an industrious and energetic occupation. It sure is a wonderful feeling to breathe early, pure morning air. It is a great sensation to be rewarded by the success of your traps.

After I arrive home I prepare for another day of school. Then comes another joy—going to school, talking, singing and running, having lots of fun. Again we have our daily romp at intermission. At four o'clock another school day is over.

I glance at my watch and discover it is four fifteen and time to feed the chickens. Here is another pastime I enjoy. After watching the numerous flocks greedily gulp their food, I gather eggs. The process next in turn is "putting up the eggs." This is putting eggs in dozen boxes ready to go to town to be sold. It is now five o'clock and time for giving David his lesson.

Most of my chores are over for the day. I do little things that are needed to be done around the house. For instance, feeding the guinea pigs. It is fun to watch the little animals running here and there for this and that. After supper I usually read. Nowadays I read a well-known magazine called "The Pennsylvania Farmer." This is the best farm magazine I have read. I pity the person who has not read it. After a person has read this they do not feel tired. And thus with this on my mind I slumber away, a happy boy on the farm.

Pennsylvania. Roy C. Keirn.

A Thousand Years Hence

I WILL proceed to tell what I do with my spare time. Well, I read (a terrible lot) and I day-dream. Then I keep a scrap-book, pasting in it many interesting things: poems, pictures, writings, views. Then I add pictures and paintings of bygone pets, dogs and cats. Some day, when completed, it will be very interesting and mayhap become famous in some museum a thousand years from now.



Butcher
30
"IT'S NO WONDER DADS BALD"
Wilber B. Butcher, West Virginia



George Washington
Drawn by Lillian Alcorn, Pennsylvania

I must say a diary is a pleasant thing to keep. (I began my first one a few days ago.) This, of course, if you don't possess a brother. If you do the first thing you know, a perfect mimicization of written words fall upon the ears of the diners: "The new boy in our class loaned me his history papers," and you almost choke on the potato you are eating.

It was my privilege to read Dickens' "David Copperfield." I liked most especially, David's aunt and the man she called Dick.

I enjoy serious articles as well as stories. Richard Halliburton's book, "New Worlds to Conquer," is very instructive as well as amusing. He tells about an ancient well in which, in olden times, lovely maidens were cast accompanied by youths, as brides to appease their god's wrath and to receive further blessings for the tribe.

Reading the "Young People's Page" isn't a pastime, for that comes in for perusal just as the noon-hour is inevitably dinner hour.

Mary V. Kundra.
Montour county, Pa.

Depends on the Weather

THE way I spend my spare time depends mostly on what kind of a day it is, and the weather.

When I am at home and it is raining, sometimes I go upstairs to my room and amuse myself with my many boxes of treasured articles and papers. Some were made by my own hands and some were given to me by different people to remember them by.

Another delightful place is in the truck room which takes the place of an attic. There I love to look at books which are very old, and look through the pile of magazines, some dated as far back as May, 1903 (26 years old). Then there are books with letters in them, and, oh, just ever so many different things.

Sometimes I read books and write letters and sometimes I just sit and think what I will do the next day.

At school, at recess and noon hour (if it is a nice day) we girls borrow a watch and take walks through the woods. As it is a country school, there are many beautiful sights to see with the green hills and trees, and birds singing, butterflies fluttering in the sun and now and then a squirrel. If it is in the winter, we go to the woods and play deer.

There is no end of fun during spare time, especially if you live in the country.

Millie Kelso.
Pennsylvania.

"James, I must break our engagement."

James, "O well, there are others."
Ruth, "I know it—I just became engaged to one of them."

ANSWERS TO APPLE PUZZLE
McIntosh, Sheep-nose, Astrachan, Crab, Greening, Lady Blush, Smokehouse, Russet, Early Harvest, Pound, Northern Spies, Jonathan, Wealthy, Bell Flowers, Pippin, Ben Davis, Delicious, Golden Sweet, Wagner, Rome Beauty, King, Duchess, Transparent, Winesap, Spitzenburg.

Prize Winners

Little Moore, New Jersey; Hazel Ninze-heltzer and Dorothy Keith, Pennsylvania; Hazel Furbee, West Virginia.

PRIZE LIMERICK LINE

There was a young lady of Kent,
Whose nose was most awfully bent.
She followed her nose
One day, I suppose
And straight to the Beauty Parlor went.

Prize line submitted by Gertrude M. Crane of Pennsylvania.

COLORING THREE BEARS

W. E. Scarborough, Mary Esther Reese, William R. Willow, Cora Houk, Ethel Irene Krug, Myrtle Garman, Marie Wells, Howard McCoughan, Elizabeth Supplee, Stephen Lahock.

PRESIDENT MIXUP

Helen Oill, Roberta B. Souder, Gertrude Turetsky, Virginia Shaner, Lillian M. Nave, Donald Wagner and Rachel Barger.

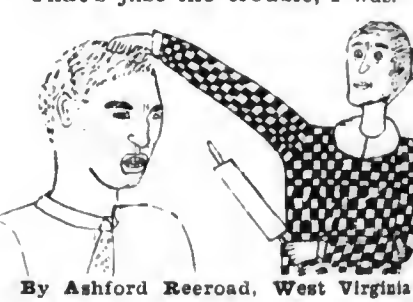
Like George Washington

WE cannot all be Washington.
And have our birthday celebrated;
But we can love the things he loved,
And we can hate the things he hated.

He loved the truth, he hated lies,
He minded what his mother taught him.
And every day he tried to do
The simple duties that it brought him.

Perhaps the reason little folks
Are sometimes great when they grow
taller,
Is just because, like Washington,
They do their best when they are smaller.
Pennsylvania. Anna Mae Howard.

"With a job like that, you ought to be fired with enthusiasm."
"That's just the trouble, I was."



By Ashford Reerod, West Virginia

Little Folks' Corner



THE NAUGHTY KITTENS.

Drawn by Hilda Reichenbecher, Maryland

COLOR Mrs. Kat and the naughty Kittens and hurry them back to Little Folks' Corner, Pennsylvania Farmer, 7301 Penn Avenue, Pittsburgh, with a short story about them. Prizes will be sent for the five best stories. Don't forget papers will be judged for neatness, too.

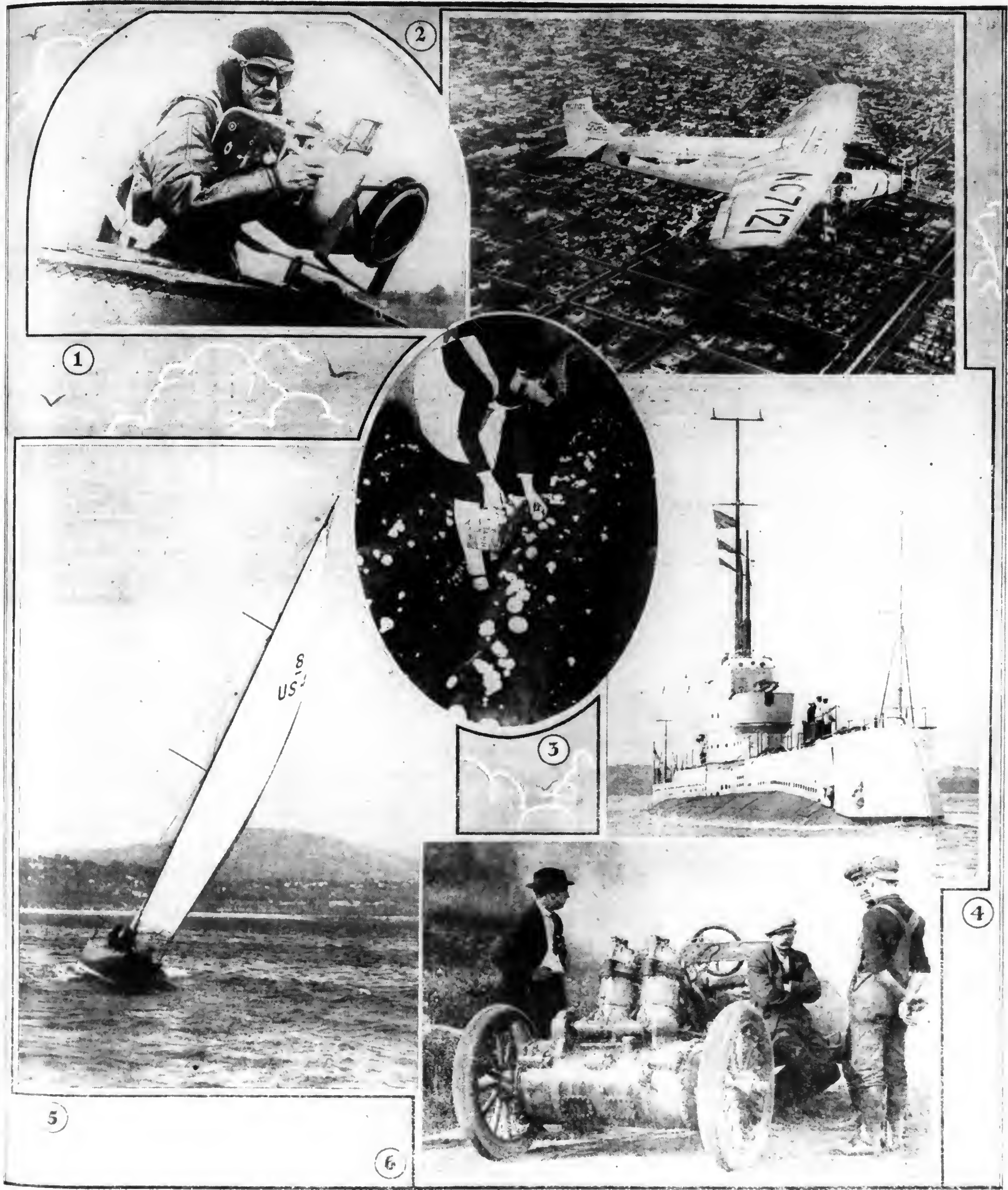
Colored by

Address

R.F.D.

Age

PASSING EVENTS IN PICTURES



1. Captain Albert W. Stevens, noted aerial photographer of the Army Air Corps, who astonished scientists by his long range photographs of objects 227 miles away from the air, has been awarded the coveted Mackay Trophy, presented annually for the most meritorious achievement in aeronautics.

In addition to his long range photographs, Captain Stevens has accomplished remarkable results in taking aerial photographs at night. Photo shows Captain Stevens with one of his cameras ready to take off.

2. Miami, Fla.—An unusual air view of the daring experiment by James Teaty, young inventor, who is shown in white pulling himself

hand over hand along a rope stretched from the cabin to the tail, where he "repaired" an imaginary defect, at an altitude of 1500 feet over Miami.

According to the pilot, Capt. O. M. Goodsell, "this demonstration proves that it is now possible to remove hazards from passenger flying while in mid-air."

3. Berlin.—Photo shows a girl tenderly picking big, prime mushrooms, as if they were eggs, in one of the prosperous hothouses near here.

1. London.—The latest addition to Great Britain's fleet of submarines, the Odin, which is awaiting its fate—a verdict which may sink all submarines—at the London Naval Confer-

ence. It is said that Britain favors the abolition of submarines.

5. Los Angeles, Cal.—Photo shows "Baby," owned by Owen Churchill of this city, winner of the King of Spain Trophy in 1929, which will compete in the fourth annual Winter Sailing Championships here during March in connection with the Los Angeles Boat Show. The famous trophy will again be presented for competition.

6. Who said front-wheel drive was new? Here is the "Chrystle," which ran in the 1908 Vanderbilt cup races.

Photo shows a rare picture of the first front-wheel drive car in the world—the Chrystle, photographed at the Vanderbilt cup races of 1908.

A Concrete Milk House

with an asbestos-shingle or slate roof is FIREPROOF, DURABLE and SANITARY... It is believed to be the cheapest in the long run, for it requires few repairs and no painting.

—Farmers Bulletin No. 1214, "Farm Dairy Houses"
U. S. Dept. of Agriculture, Washington, D. C.

Free Construction Plans

A four-page leaflet has been prepared containing plans and instructions for building a concrete block milk house.

INSULATED CONCRETE COOLING TANKS which SAVE HALF YOUR ICE are included in the above plans.

Your Copy Is Free—Ask For It

These plans may be procured from your County Agricultural Agent or by mailing the coupon below:

Portland Cement Association
1315 Walnut St.
PHILADELPHIA

Please send me a free copy of your booklet on "Milk Cooling Houses of Concrete."

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St. Address (or R. F. D.).....

City.....

State.....

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Experience

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GUERNSEY BULLS, from one to eighteen months, from A. H. sire and dams with records up to 200 lbs. Fat, strong in the blood of Longwater Cavalier, Longwater Stars & Stripes, and Longwater Valiant, Federal Accredited and blood tested. Write today for sale list with full description. FRITZLYN FARMS, Pipersville, Pa.

Registered Guernsey Cattle
Fresh cow, and cows coming fresh. Also heifers and bull calf. J. A. Dreisbach, Emlenton, Pa.

REGISTERED GUERNSEY BULL, eighteen months old, blood tested and blood tested. CHALMERS MEANS, Shippensburg, Pa.

AYRSHIRE CATTLE of the best blood lines. Head F. H. Accredited. Animals of both sex and all ages. Geo. B. McConnell, Wellington, Ohio.

TWO PURE-BRED GUERNSEY COWS, three years old, blood tested and accredited. Yearling bull. JOSEPH G. KENNEL, Atglen, Pa.

REGISTERED GUERNSEY HEIFERS, good type, good breeding. Head accredited Fat, and blood tested. GEORGE S. HAVENS, New Hope, Pa.

TWO GOOD and exceedingly well-bred registered Jersey bull calves to be sold at low prices. W. F. McPARRAN, Furness, Pa.

STEINERS—Good individuals backed by practical production records from a class herd. Inquiries solicited. Ornela Farm, Inc., Clinton, Pa.

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ECONOMY SILOS

Farm & Dairy

By L. W. LIGHTY

ONE of the most important operations on the farm is the seeding of clover, but many farmers give little attention to it.

In the East the great majority buy their seed and very often the lowest priced seed is their selection. Dealers tell me with the majority price is the first consideration, while a minority demand high quality and purity and then consider the price. Low-priced seed generally carries undesirable weeds, of which we all have too many now. Very often the low-priced seed is of a low or slow germination quality; while we pay for a bushel of seed we get only two or three pecks worth of plants, and it is very expensive seed. Often it is not adapted to our climate and by haying time not many plants are left. All in all, the lowest priced seed is very often by far the most expensive seed.

Get Reliable Seed

It is a wise plan to buy from a reliable dealer and pay the price for pure northern U. S. grown seed. Place a sample under the glass and you can see if seeds, not clover, are there. If such are found better look around until you find some that will pass inspection. My rule always was to buy my seed in good season, in the late fall to midwinter, not that I wanted to sow it in midwinter, but I did want the seed right at hand when the sowing conditions were right.

These sowing conditions might come the end of February, the beginning, middle or end of March, but I wanted to be ready to take advantage of them any time.

On Honeycombed Ground

These sowing conditions every winter wheat growing farmer understands. When the ground is frozen up or well honeycombed then I would be out as soon as there was light enough in the morning to see what I was doing and by the time the sun threw the ground down by thawing a good sized field was sowed. In a few hours the seed was almost all nicely covered and ready to grow as soon as the earth warmed up a little more. Thus the little rootlets were where they should be and not on top as they are if sowed on the solid dry ground.

I am aware that a small number of farmers have seeders that lightly cover the seed and lightly cultivate the wheat and this manner of seeding generally is very satisfactory, but only a few have this equipment.

The Weed Problem

I do not forget that in a big northern fraction of our state the clover seed is sown with the oats at seeding time. That is also very satisfactory, but pure good seed is as important there as it is anywhere, because they can fully match us down here near the Mason & Dixon Line on the number and variety of weeds on the farms. Indeed they go us one better, because they have thousands of acres of the devil's paint brush, which we know nothing about unless we have been up to see it. It is a very bad actor.

In some sections nearly every one sows alsike clover with the red, but many have not yet learned the value of alsike clover. Alsike is a great filler. It has a knack of fitting itself between the red clover and the timothy plants and splendidly thickening the plants for hay and sod. It often grows in spots where red clover will not do well. It makes a desirable and palatable hay and it surely increases the quantity if we add two to four pounds of it to our red clover before we seed it.

Last but not least, alsike clover is a splendid bee pasture and yields lots of the finest kind of honey, so if we have several hives of bees back of the garden they will delight you with their industry, storing an unmatched covering for your next winter's buckwheat cakes.

Let gravity do it!

Don't break your back and arms pitching and lifting out silage. Do it the easy Unadilla way. For the air-tight, water-tight door gives continuous opening at the level of the silage so you simply push the silage out. Gravity does the work.

Door fasteners form a safe permanent ladder. Doors can't freeze. Hoops easily adjusted. Write today for big catalog and discounts on early orders. Time payments if wanted.

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UNADILLA SILOS

Seek Mineral Facts

A Stack of Clover Hay

J. E. W., Fayette county, Pa., had a stack of clover hay that he could sell if he can find a buyer. Then he would use the money to buy fertilizer. He has paid \$34 a ton for 2-3-4 fertilizer, he says. The stack of clover hay would be about four tons and he is asking \$8 a ton, or \$32 for the stack. He asks if this would be good business.

We will compare the contents of the clover stack and the fertilizer sacks in plain figures. That formula, 2-3-4, means that you get in the ton you buy 40 pounds of nitrogen, 160 pounds of phosphoric acid and 80 pounds of potash. In four tons of clover hay you would have about 160 pounds of nitrogen, 44 pounds of phosphoric acid and 140 pounds of potash. But if you plow under the clover hay you get a lot of organic matter to decay and put your soil in a better mechanical condition, and besides that process of decaying brings conditions that may add to the soil nitrogen from the air.

The inquirer will see it will be no business at all to trade that clover stack for the ton of fertilizer. Though we have talked for years about the great value of clover, many farmers do not realize how very valuable it is both as a feed and a fertilizer. I cannot imagine a condition when we can sell clover hay from the farm in this country.

L. W. L.

Seek Mineral Facts

THE intense metabolism of the milk-producing cow depends on the reactivity of the mineral nutrients of her food, says Director E. B. Forbes, of the Institute of Animal Nutrition of the Pennsylvania State College.

Important scientific and practical problems in this relation are being studied by Dr. Forbes and his associates in the most extensive mineral metabolism experiment ever undertaken.

Twelve Holstein-Friesian cows are the subjects of this research program and their mineral metabolism will be followed by means of continuous balance experiments throughout as entire year's cycle of lactation and gestation.

All of these cows have calved since November 30, and are now producing an average of over 53 pounds of milk per head per day.

Special stalls have been devised to permit of the accounting for the disposal of the nutrients of the rations, and complete balances are being made of the elements, sodium, potassium, calcium, magnesium, phosphorus, chlorine and nitrogen; and bomb determinations of the energy of the food and the milk are being made as a basis for the determination of the efficiency of the cow in transforming feed energy into milk energy.

This research involves personal attention during 24 hours of every day. It requires practically full time from seven of the scientific men of the Institute of Animal Nutrition, and seven other technical workers. In addition, counsel, assistance and financial cooperation are being contributed by the Agricultural Experiment Station, especially through its department of Dairy Husbandry.

A 21-YEAR-OLD COW

PERHAPS this little item will interest some of your dairy readers. I have a grade Holstein-Jersey cow, "Clover," which celebrated her twenty-first birthday Christmas morning and is now giving a little more than a gallon of milk a day. She is in good condition for her age and never misses a meal. She has been a wonderful butter cow. Of course she has and is now having the best of care. Fannie H. Butts.

Lawrence county, Pa.

A heavy milking herd—THE TRUEST ECONOMY

Dairymen:

A DECLINE in milk prices does not mean that your profits have to stop. You can make fair returns all year round, if only you produce enough milk per cow, and produce it economically.

One of your best aids is the Amco Feed Mixing Service. You must continue to feed a grain ration, so why not feed a ration that helps you to economize? Amco Feeds go farther, because they are highly digestible and contain no fillers. With these feeds you can supplement your roughage perfectly without buying too much protein (the expensive ingredient). Yet by turning to the open formula tag on all Amco bags, you can see that you are getting enough protein, from widely varied sources.

Let your roughage decide which Amco Ration is best for your herd. Amco open formula dairy feeds range from 12 to 32% in protein content.

Your nearest Amco Agent will help you select the Amco Feed best suited to give you all-year profits.



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The Story of Woodbine Farm

By W. D. ZINN

CHAPTER VIII

In my boyhood days it was difficult for a beardless boy to obtain a school, for corporal punishment was very generally practiced. A former neighbor and a very warm personal friend of my father had moved into another community and had become the only trustee of the school in his district. My father asked him to let me teach the school. Possibly out of respect for my father, more than for the confidence he had in me as a teacher, he agreed. The fact was, as I afterward learned, that two or three years before some bad boys had run the teacher out, and broken up the school. This information did not give me any particular pleasure, for, as I found on the first day of school, there were several boys in the community who were as old as I and fully as well developed physically.

I engaged boarding with a Mr. Trimble. I shall never forget the question he asked me when I went back to his home on Monday evening, having taught the first day. "How did you get along today?" he inquired. Then he asked me if a certain red-headed boy, calling him by name, was enrolled that day. I replied that he was not. Then he told me he was considered the worst boy in the neighborhood and if I were not very careful he would "run me out." That night did not bring to me the most peaceful slumber.

The Red-Headed Boy Appears

I was the son of a mother who had been a successful teacher for 20 years. Was her son, who had chosen her profession, to fail as a teacher? Banish the thought! Before I had reached the school house the next morning I had made up my mind that I would control the school and teach it, or die in the attempt. I was particularly interested in the new faces that put in their appearance the next morning. Finally the red-headed boy, described by Mr. Trimble the night before, opened the door. He was a broad shouldered, stalwart young man who looked to be as old as his teacher. I spoke very kindly and politely to him when assisting him his lessons. I decided that this boy had been either mistreated or misrepresented. Young folks often jump at conclusions. Promptly at 12 o'clock I announced the dismissal for dinner. The red-headed boy rushed to the door and when on the outside exclaimed in a loud voice: "Boys, stick to me and we'll run that greenhorn out in a week!"

That noon hour was spent in deep meditation, so far as the teacher was concerned. One o'clock having arrived, the bell was rung. The pupils filed in and took their seats. When everything was quiet the red-headed boy began to whistle. I walked across the room and kindly asked him what he meant by such conduct. His reply was against the rules of the school. He said he did not care a damn for the rules. I then demanded of him that he stand on the floor. Never during all my experiences as a teacher did I more seriously desire a pupil to comply with my request. He only smiled a defiant smile and said, "I would like to see you make me do it."

I gave my pocket knife to a son of the trustee telling him to go to the woods nearby and cut me a real hickory switch. I remembered then that Solomon had said, "Spare the rod and spoil the child." This boy had no doubt been spoiled before, but I made up my mind that I would punish him, that is if I were able to do so.

Having been supplied with a real "honest-to-goodness" hickory, I again pleaded with the boy to stand on the floor. I told him I did not want to whip him on the first day he was in school. If I ever told the truth I did

it then for there were more reasons than one why I did not want to whip him. Moral suasion having failed, I began to strike him across the shoulders. The boy jumped to his feet and began to return the compliment. A fist fight ensued that still today is not pleasant to think of. Finally I threw him on the floor, placed one hand on his throat and with the other seized the whip and continued to strike him until he said: "I'll stand on the floor, if you'll quit."

A Victory

I was just as anxious to stop as the red-headed boy was to have me. The truth is I was almost completely exhausted. During the fight the boy had scratched me on the cheek and the blood was running profusely down my face. The smaller children, witnessing the struggle, and seeing the blood streaming down my face, began to cry. Peace and quiet prevailed and we went on with our afternoon program.

When I returned to my boarding house that evening Mr. Trimble said, "It looks like you had been in a fight and had got the worst of it." I then explained what had happened and told him the red-headed boy had stood on the floor until I asked him to take his seat. "You have won out," said Mr. Trimble, "and I do not anticipate any further trouble." He was a true prophet, for that was the only trouble I had during the four months. The red-headed boy and I were soon fast friends. He frequently brought me apples and at noon we often took walks together. No doubt, many of my readers will conclude that I was too hot-headed and should have controlled the boy by moral suasion.

Ten years later, when I was visiting that school as County Superintendent of Schools, a man came up and taking my hand shook it very cordially. I did not recognize him. He said, "You ought to for I am the boy you choked on the floor." Continuing, he said, "That was the turning point in my life. I am a better man today because you controlled me in school."

I received twenty-five dollars per month for the four months teaching. When the school closed I had all the money except sixteen dollars that I had paid for board and the amount I had spent for candy with which to treat the children at Christmas.

Sixty-five Pupils

There was a school at Flemington, W. Va., called "West Virginia College." The term consisted of ten weeks. It was a boarding school. The board and tuition for the term cost thirty-one dollars. With the proceeds from teaching my first term of school I was able to buy all the "store" clothes I needed and to pay my expenses in this school for two terms. I received an advance in salary the next winter of three dollars per month, for in the meantime I had obtained a "number one" certificate.

I recall with considerable pride one term of school I taught. The enrollment was sixty-five, ranging in age from six to twenty-two years. Some of these pupils were studying higher mathematics and Latin. No pupil worked harder at night than the teacher who prepared the lessons for the next day. I had so many classes that in order to give all the pupils a chance I had one class to come at seven-thirty in the morning and kept another class until five in the evening.

Aside from public schools, I taught six summer schools. These schools were called "Select Schools." The student body was composed of teachers or those preparing to teach. The first of these schools was taught at St.

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George in Tucker county, in the spring of 1880.

St. George was nestled among the Cheat Mountain Ranges, and on the banks of the picturesque Cheat river, so I took my wife along to spend the summer with me. Much to my surprise and more to my gratification when the school opened we had sixty-five pupils, and for two weeks they continued to increase until we had ninety. This included, however, those who were in the grades. Thus it will be seen that Mrs. Zinn became a real helpmate from the beginning of our married life, and she has ever continued to be such.

Fishing for "Red Horse"

Very few, if any, more pleasant summers have I spent than the one at St. George. Cheat river at the time was alive with fish, and many of the sportsmen went "gigging," as they called it. My host was an expert at fishing, and often wanted me to go along with him, but it was a violation of the law to kill fish with a gig, and I thought a teacher ought to be a law-abiding citizen. One evening my host said, "Rev. Mr. — is going with me tonight and we would like for you to go along if you do nothing but carry the fish for us." The temptation was too great. I thought if the preacher could afford to gig fish the teacher could afford to do so. The fact of it was, there was scarcely an able-bodied man in town who did not catch his fish by that means. I not only went, but I determined to go the "whole hog" and took a gig along.

A Preacher's Example

It was a moon-light night, as we wended our way down the river. On the way we secured some material from which we made three good torches. All the time my conscience was telling me that I was doing wrong. I wondered whether the preacher's conscience was speaking to him in the same way. If it did he said nothing about it, so intent on gigging was he. I wondered all the time if I could hit a "red horse," for that was what they called the fish we sought. One torch was lighted and carried by one of the men walking between the other two. We had not gone far, until I spied a red horse. Throwing my gig, I struck him just where I aimed, behind the head. I am not sure that I heard my conscience any more that night, but how could I when the river was roaring, and the red horses were darting hither and thither?

One torch was soon burned out when a string of fish that reached from my shoulder down into the water had been caught. It now became necessary that one of us should quit gigging and carry the fish and torch. Because I was not an expert, it fell to my lot to do this much as I would have preferred to have continued the sport.

County Superintendent

In the spring of 1881, I was elected County Superintendent of Free Schools for two years at a salary of \$250 per year. The law required me to visit every school at least once a year. At that time there were about ninety schools in the county. Former superintendents had made it a rule to visit three or four schools a day, but I believed that, if the visit was to be worth while, the superintendent should remain long enough to learn something about the workings of the school. I, therefore, made it a rule to visit but two schools a day. We held a night meeting at the school visited in the afternoon. On each Saturday during the term of school we held a teachers' institute in some district of the county. We had district examinations for the more advanced pupils, and issued school diplomas. The term of school was four months, and the superintendent spent almost every day at his work from the time the schools began until they closed in the spring. (Continued on page 20.)



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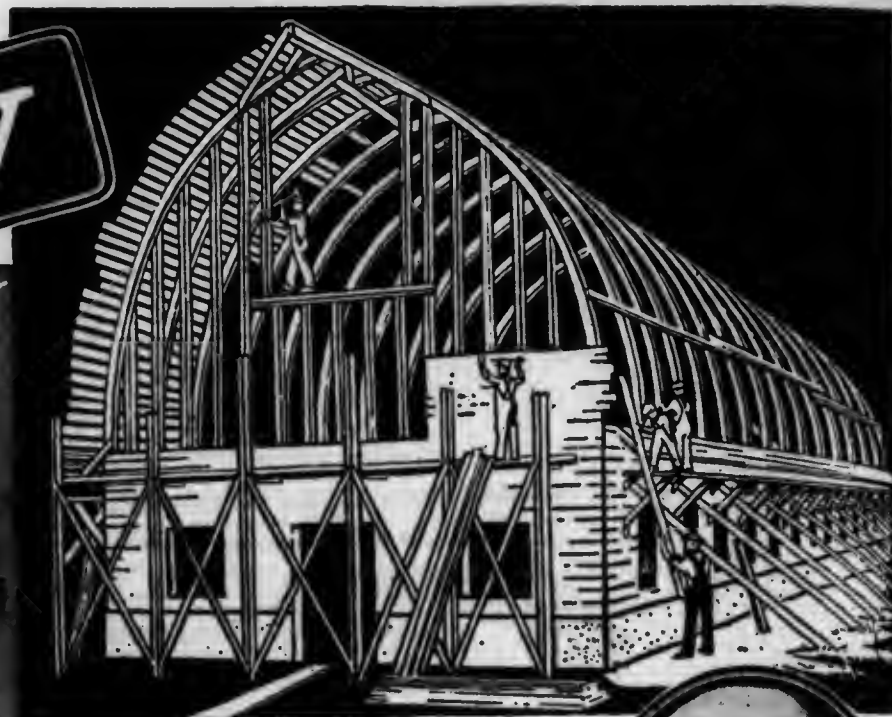
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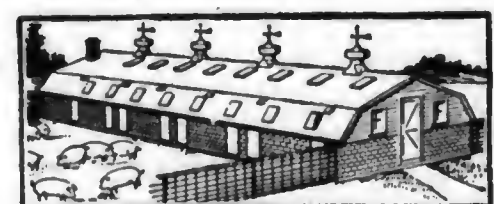
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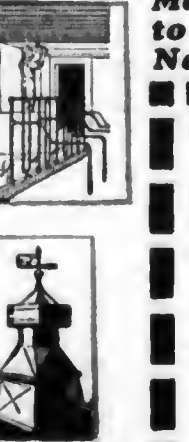
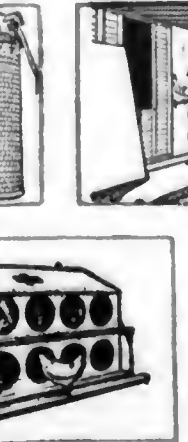
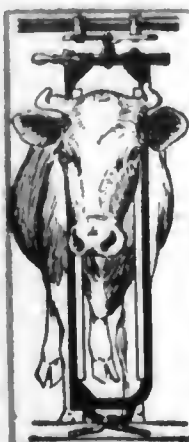
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Mammoth Yellow Flint, Improved Leaning, Sweepstakes, Lancaster County Sure Crop, Early Yellow Dent, Mammoth White Dent, Golden Glow. All these varieties and others listed have proved their worth. Several kinds as low as \$2.00 a bushel.

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Introduced by me, universally proves one of the heaviest producers in good and bad seasons, it is of high quality and a general favorite either for market or home use.

Our frost-proof storage houses 400 feet in length are filled to capacity with Seed Potatoes both Certified and selected including all the popular varieties at prices you can afford to pay.

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Farm Facts and Fancies

By ALVA AGEE

THE guava is a sub-tropical fruit of distinctive flavor, and is specially valued for jellies. We have two trees and they are peculiarly attractive to me on account of their happy-go-lucky schedule for fruiting. There appears to be three distinct but over-lapping crops within the year, and late in December there was a heavy crop of belated green fruits about two-thirds grown. The guava needs a great deal of water, and watering has been neglected. Matters were at a standstill, and so I fertilized heavily and soaked the ground for two days, thinking I could get action. I did. The fruits were too much toughened by neglect to expand naturally and so they split open, making themselves worthless and ridiculous. They couldn't stand prosperity.

Many of us need to use the old prayer, "Give us neither poverty nor riches." If those guavas had had a modest income of plant food and water throughout their lives to meet modest needs, they would have amounted to something. As it was, they blew up.

Obedying the Law

The Congress, the churches and other associations of individuals are discussing the general attitude of the public toward law observance. A traffic officer told me that the law was broken every minute at the intersection where he was stationed.

You cannot well arrest all the public, at least at one time, and when a regulation appears absolutely unreasonable, and was made only as a check on recklessness and a means of easy conviction in case of accident, most people will stay within what they think is in the officer's mind and not what is in the statute book.

Stringent regulations that no one proposes to enforce tempt the most of us to become law-breakers and the result is deplorable. Ill-considered laws are piled up by legislative bodies as threats. Some simple, sane and moderate laws, that meant exactly what they said and appealed to the great majority as reasonable, could be enforced, and law observance would come back, or part way back.

An Apology

I have a letter from an unduly appreciative reader who is troubled by the use of the word "socialistic" that was made by me when commenting on the effect that the five-days-a-week program of labor leaders would have on farmers and people having fixed incomes. I had referred to the leveling of property rights as socialistic.

I could defend employment of the word when used so broadly that it does not serve as something definitely descriptive of modern socialism. Such use of the word is common, but I prefer to say frankly that I should have worded my statement differently.

Used in its broadest sense, socialism characterizes the trend of thought and action in all our progressive nations. That is to say, human rights bulk larger with us in each succeeding generation, and constantly are more influential in legislation. It is something else entirely to want to eat the bread another has earned.

"In Fun or In Earnest"

My correspondent says he doesn't know whether I was "half in fun or wholly in earnest." Sometimes it is better to leave matters that way and not take one's own opinion too seriously. It is a good deal more important to get one's associates thinking about something of value that may lie in one's mind than it is to assume that he can instruct them. A lot of instruction has a way of getting permanently on a side-track and



Snow scene on the farm of John Snyder, Franklin county, Pa.

we move along to clearer vision. The tremendously important thing is that every one do a lot of thinking for himself.

If a writer leaves some statements on the edge between fact and fancy he may really be as near the truth in respect to that particular matter as he can get for the time being. He stirs the reader to think it through. He will have done about as much as the most of us are equipped to do. Holding fast to some essentials, the chief thing is to make a little headway all the time toward the future.

Substitute Crops

When there is excess production of a crop in one region, or when some insect menace, like that of the cotton borer, is facing a locality, our farmers seek substitute crops. I recommend to the farmers. Growers elsewhere may know that they have more than meeting present market demand, and they do not want more competition, but our advisers are the right. Their business is to give the best counsel possible to the individuals confronting loss, and if the farmers can substitute something that they can produce more cheaply than those now in the business the way should be open to them.

It is the old fact that individual interest often is anti-social. We would be back in primitive times if the individual was not free to make use of his natural advantages and natural ability to succeed, and in farming this country success is based largely on ability to keep cost of production down below the average. Therein lies much of the net profit.

Buying on Credit

The people in the thirteen American colonies had little money to use in business transactions. They "traded" products with each other and with Europe. Later came the day when a big amount of credit could be based safely on the limited stock of gold and silver, and business expanded. There is no limit to want, and our present rapid increase in production and consumption is due in small part to a buying power resting on probable future ability to pay.

Consumers create a market for producers' goods by pledging payment when they earn the money. They buy on the installment plan, and have been keeping the country busy supplying their wants.

President Hoover's call on industries to keep men employed is promising to be effective, and if such is the outcome installment buying will have escaped a critical test for the present. The call could not have had much effect if conditions had not been pretty sound industrially. An old-fashioned, conservative and dependable way is to base purchase on earnings.

On the Cover

The Taos Indian shown on our cover this week was said to be 103 years old when the picture was taken.

How the National Corn Champion won title

Champions All!

They use and recommend Swift's Red Steer Fertilizers

ROSCOE POWELL, Brown-
ing, Mo. Champion National
Corn Show, Hanni-
bal, Mo.

BENNETT & THOMAS,
Belvidere, N. J. Cham-
pions, New Jersey Potato
Growing Contest

F. W. FRICKE, Hartselle,
Ala. Cotton Champion,
Morgan County

J. V. COCHRAN, Marietta,
Ga. Champion, single cotton
stalk, Southeastern Fair;
Champion, single stalk,
National Cotton Show

HENRY HEILAND, Thom-
asville, Penn. Seed Corn
Champion of Pennsylvania



Roscoe Powell, Brown-
ing, Mo., National Corn Cham-
pion, and his prize-winners

GRAND Prize, National Corn Show, Hannibal, Mo., for the best bushel First Prize for the finest ten ears—Grand Champion ten ear corn sample, meeting of the Missouri Corn Growers' Association!

"And with the help of Red Steer, we hope to repeat this success," writes Roscoe Powell, Brown-
ing, Mo.

"My son Jay and I used Red Steer high analysis on our corn. Here is what happened! At the National Corn Show, Hannibal, Mo., in which practically every state in the corn belt was represented, I won first prize for the best bushel of corn. I also won first prize in the National ten ear class. My son won fourth prize in the bushel class.

"At the annual meeting of the Missouri Corn Growers' Association, at Columbia, Mo., my son and I carried off three of the five prizes, and won two other championships.

"We have been shown that it pays to use Swift's Red Steer high analysis complete fertilizer."

There is a definite connection between profitable high quality crops and high quality fertilizers, as successful farmers know.



Look for this Certificate of Quality when buying fertilizers. You'll find it attached to every bag of Red Steer. Your assurance of BEST MATERIALS, DOUBLE MIXED, TRIPLE TESTED

Like Mr. Powell, they look for the Swift Certificate of Quality on each bag of fertilizer. It assures: BEST MATERIALS, DOUBLE MIXED, TRIPLE TESTED.

BEST MATERIALS—plant food from the most productive sources.

DOUBLE MIXED—fertilizer thoroughly mixed and in good drilling condition so that each plant will get its share of plant food.

TRIPLE TESTED—in fully equipped laboratories, assuring the right kind of plant food in the right form and right amount.

Look for the Certificate of Quality attached to every bag of Red Steer.

Let Red Steer build new profits for you. Ask your Authorized Swift Agent about Swift's Red Steer 7-11-7; 3-12-15 and 4-16-10—the money-saving high analyses.

Swift & Company
Fertilizer Works

Hammond, Ind. Cleveland, O.
Baltimore, Md.

Swift's Red Steer Fertilizers

"IT PAYS TO USE THEM"

BEST MATERIALS—DOUBLE MIXED--TRIPLE TESTED



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of your A.S.A.

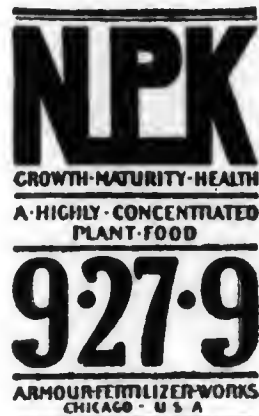
The economics of AGRICULTURE are changing

ARE YOU half farming all your acres instead of intensively farming half your acres? This is the charge that some authorities make against many farmers. Does it apply to you?

Modern farming is intensive farming. A full yield from 40 acres always shows more net profits and surer profits than a half yield from 80 acres. It means less work in plowing, planting, cultivating and harvesting. It means less money for help, seed and implements.

One of the outstanding aids to intensive and profitable farming is the generous use of fertilizer.

Unquestionably NPK, which has 45% available plant food, is a forward step in fertilizer manufacture. It helps to maintain soil fertility. It is a super-fertilizer. It has enough nitrogen to grow a large crop



quickly; phosphoric acid to mature it early and avoid the danger of frosts; and enough potash to insure a healthy plant and a crop that will grade

high in the market. NPK is properly made. It has the proper ratio of plant food elements. It is in splendid mechanical condition; it is fine, dry and drillable, and can be applied in small or large quantities with ordinary fertilizer attachment.

NPK furnishes one of the best means of reducing cost of crop production, improving quality, and increasing the dollar return per acre.

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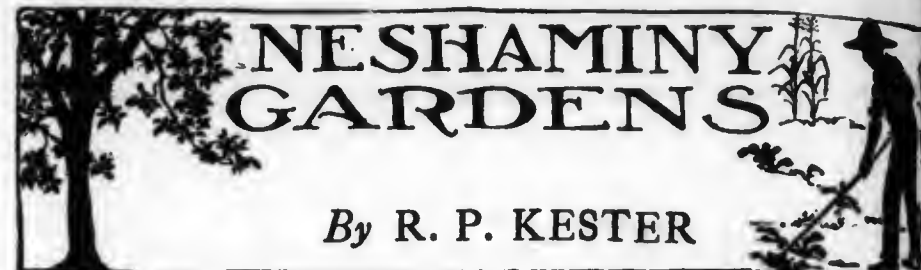
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Town _____ State _____
Dealer's Name _____



IN addition to the continual questions concerning garden tractors, the proximity to the spring planting season has brought a number of queries about small fruit and vegetable culture, including varieties. I shall try to lump these answers in a summary so as to save time and space.

Strawberries
The successful culture of strawberries requires that the soil be fertile and of such a nature as to make cultivation easy. Good corn soil usually makes a good location for strawberries. It should be full of humus and reasonably free of stones, although I have seen good crops where small stones were abundant. But it is not nice to work. If the ground has had a heavy application of manure made to a previous crop it is an ideal preparation.

After the plants have started and become well established, an application of a complete fertilizer may be made; one analyzing 4-8-10 is satisfactory at our place. If the soil is not in good fertility, half the amount, say 300 pounds per acre, may be applied before setting, and thoroughly worked into the soil. Under no conditions should fertilizer be applied in the row just ahead of plant setting. Lime seems to be not an essential, although experiment stations differ on this subject. Begin cultivating right after planting, keep weeds down and hoe when necessary. Rows should be at least four feet apart, and the plants set 15 to 18 inches apart in the row.

It is well to have two or three kinds when the main object is a supply for home use, or where one is interested in experimentation. But at Neshaminy Gardens we have reduced the number of varieties to one—the Premier. This variety is good for home and market, and is so good in every way that we have no other kind now. All good, up-to-date plant growers have this variety. Of course, it may not be as good for every locality. Strawberries are somewhat peculiar in this respect.

Tractor Plowing
In spite of the number of times I have told about the use and limitations of garden tractors, inquiries continue to come in, asking if they can be used to do all the plowing on places of from three to ten acres. It should be understood once for all that a true garden cultivator will not do general plowing. It will plow and do a good job with a seven to eight-inch plow. But anybody acquainted with plows knows that the depth to which a plow can go is dependent on its width. Twelve and fourteen-inch plows can be run to a depth of from four to eight inches. But an eight-inch plow is limited to three or four inches in depth.

A garden tractor of the better kinds will plow four or five inches deep with an eight-inch plow, provided the soil is fairly friable. Modern garden tractors with engines having three to four horse power will do this. But don't forget that honest-to-goodness plowing of ordinary field soil requires more power than that if such soil is to be plowed deep enough. Garden tractors are primarily for making rows, covering seed, light disking, cultivating, etc., and for this work a good one is a good investment.

Cantaloupes

We have had the extremes of success in raising cantaloupes—good and bad. Two years ago we raised the finest vines I ever saw. From the

first up to the time the melons were nearly ready to ripen they were idling. Then, suddenly, the aphids hit them and in spite of all we could do the vines went floey, and the most of the crop never ripened properly. Another year they blighted in spite of thorough spraying.

Last year we planted only a hill and gave them scant attention. There was no blight, no aphids, and several good melons. Some of the best ones for us are Emerald, Fordhook, Milwaukee Market, Osage or Miller's Cream. Melon growing in the East is more of a game than it is in the dryer climate of the Southwest.

A P. S. to one of my correspondent's letters says: "Tell us about your family and grandchildren when you feel like it and don't mind us the 'crabs' say. Most of us like to hear about them."

Friendly Talks

By Edgar L. Vincent

WE will all lift a little and spring will soon be here.

Yes, spring is already beginning to tug at the latches so that she gets out and begin the season's work. We can think of a lot of things that can do, and perhaps is even now doing. Throwing the blanket of snow to the winds, warming up things on the south side of the house, so the old dog likes to stretch himself out there on sunny days. Here there a brave catkin appears on the willows down by the creek. Streams of water on warm days course down the hillside on their way to the larger streams below. Spring can lift a lot, and such a person as she is too!

But you and I. What can we do to make spring come a single bit faster? We would like to boost. We are like the fellow who sang in the choir. He had about as much of a voice as a frog in springtime. He wanted to sing in the choir, he said he could "yell like sixty" if only knew when to yell.

A few things we can do, however, that will shorten the time between now and the real spring days when we are coming. We can act as if thought spring were coming. Some times when we talk about spring plowing at the door, our mouths have a downward slant that leaves the impression that for us spring seems forty miles away.

Oh, that downward curve at the corner of our mouths! It indicates anything but happiness on our faces. We are not half as happy as the rooster is. He crows so you can hear him half a mile and every crow says "I'm tickled to death to think spring is most here!" That is the way it ought to be with you and me. We ought to laugh and shout and kick up our heels and hunt up something to do at home or around the neighborhood that will make everybody happy.

Because, don't you see, spring is the thing of the heart. You can make spring everywhere if you are busy spring in your heart. The busier you are, the warmer your heart, and the more you will thaw out all the icicles and the early flowers a chance to spring up and make the world a bit more beautiful.

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PENNSYLVANIA FARMER

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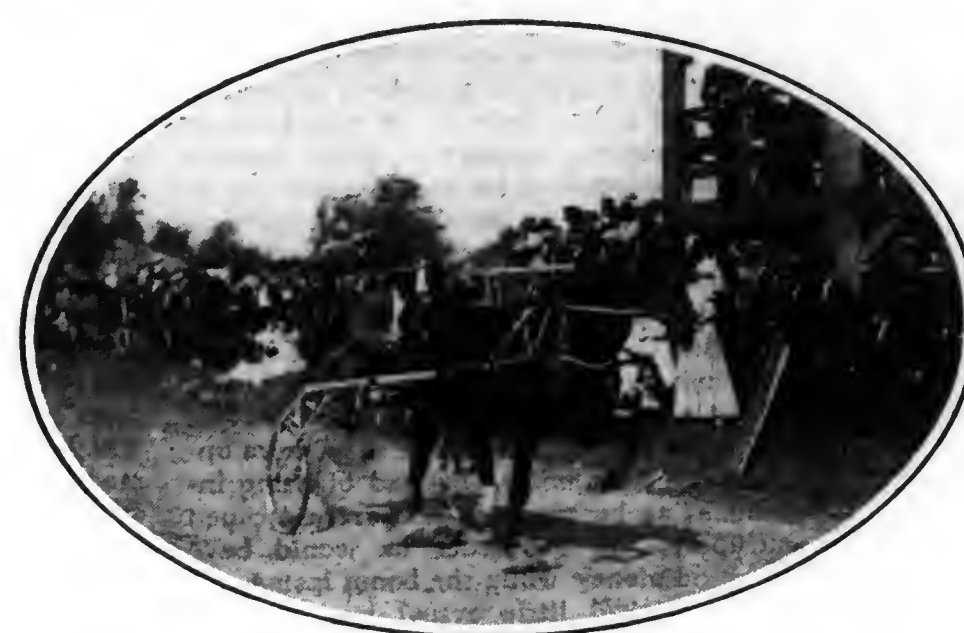
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Pittsburgh, Pa., March 1, 1930

No. 9



The love for horse racing still lives.

A Part in the Show

By W. W. McWHEELLOCK

track to visit and to mill around. And they weren't all Sunday vehicles that the fair-ground police, with loud-voiced authority and hickory canes, parked—nobody used that word then, nor knew its present meaning—and shoved into a formation that became a promiscuous tangle at going home time. More than one farm wagon, bedded with timothy or fresh straw and carrying a cargo of wide-eyed family and home-grown food, rolled out of the barnyard soon after midnight and rumbled into the fair ground at break of day. It was an achievement to get there first.

Remember?

"Three-minute" horses led their stuff going to the fair—and returning home. The roads were clogged with them, reined high, with rows of red, white and blue rings in the overchecks. You old boys with graying and thinning thatches, remember how steady your hand was on the lines, and how you held the whip with a red ribbon bow on it. Some of you carried the whip around with you all day. Remember? Your girl liked the way you showed off. You did it for her, and she married you because you were good at it.

And the horses tied in rows along the fence, with board and scantling and fence rail partitions to keep the cross old mares from kicking the gizzard out of everything near. Many a trusty steed carried his county-fair marks to the grave. Occasionally a heaving halter pulley would wreck a section of fence and turn loose a bunch of horses, making more work for the already hot-up police.

Noontime! The baskets, washtubs and cheese boxes of fried chicken, pickles and cake! A jug of cold tea! "Somebody must go for a pail of water!" And there was a long line waiting at the rickety pump. It was a good well that held out at fair time. The men stood eating with one foot on a hub—they could hold more standing—and threw ricks of chicken bones under the vehicles. Dinner was over by time the races started. A few pious folks didn't believe in horse racing—but why bring that up?

The small-time, country race horse man of those days was of a distinct and interesting type, now almost gone. Gone, too, are the multitude of his friends and supporters, the farm breeders of trotters and pacers; every colt a potential Maud S or Nancy Hanks. They were a hard-up lot, those county-fair race campaigners—but a hopeful lot; like the gold prospector with shouldered pick and

a day's rations in hand, expecting to strike it rich just over the hill.

The love for horse racing still lives. May it never die! And, Editor, here's one old timer who prays that the men who are financially able to play will continue to breed trotters and pacers; that the county-fair race card may be always full.

The admiration for and dependence on good livestock are as great today as ever. The county fair offers a place to show what we have done to improve our crops and livestock. The management that makes this feature attractive for the boys and girls is making the best use of the sound old institution, The County Fair.

It's harder to make an event now than it was in days gone by. The county fair management that can make the county fair of today as good or better for this generation as the fair of years ago was for those of us who look back through the glamour of years is doing no mean job. The same formula, the same program won't work equally well in maintaining and up-building all county fairs; but as shown by Betty Eckhardt, each county, each management can discover the right program when they set about to find it.

Look Up the Records

SOME of the most surprising things come up when titles to property are examined for farm loans. There at the court house is the plain record, but somehow no examination has ever been made until something comes up so that an estate is to be divided or a loan needed. Delving in musty records of the past is interesting business, but some very disconcerting things are dragged to light in many instances.

A young man who inherited a small piece of land took it into his head that it would be well to dispose of this tract to a farmer near needing land without buildings, and buy another desirable farm on which he could live. But when the records were examined there was found a judgment against his inheritance that had been eating into it for sixteen years, costs, interest and all.

All kinds of things are revealed to people who have lived confidently on their farms for years. The necessity for a loan brings up the difficulties that are not always easy to settle. An old lady who had neglected to sign a deed forty years before promptly said it would take one hundred cash to induce her to put her name to the paper, and she got it.

Another man who had inherited a farm in boyhood from his grandfather never had heard the terms of the will. He improved the place, had fine buildings and then discovered that it would go at his death to some cousins he was not particularly fond of, unless he had a blood heir. "And me a confirmed bachelor!" he said humorously when the loan was refused because of the flaw in his ownership. "Well, I can't get a loan, but I'll see about heading off those shiftless cousins."

That was five years back and he now seems happy with his wife and children. He says he is going to head off those cousins by taking extra good care of his sturdy youngsters.

It doesn't cost much to run your property back, and if applying for a loan reveals any flaws the sooner you know it the better. Farm Loan Agent.

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TO PROTECT SHIPPERS

LAST week the House Committee on Agriculture held hearings on the Summers bill (House bill 5663), which provides for federal licensing of dealers, commission merchants and brokers in perishable fruits and vegetables. Several states now have laws of this nature but they are inadequate because so much of this business is inter-state. There is great objection, and properly, to the extension of federal control of business; but that should not stand in the way of this legislation for the protection of shippers who cannot be protected in any other way.

COMMERCIAL CATTLE SHOW

CATTLEMEN in eastern feeding territory will be glad to learn that the Lancaster Fat Cattle Show will be held June 18-19, with the prospect of being better than ever. This show is unique in one respect—the cattle competing for prizes must have been bought as feeders at the Lancaster stockyards. This is the biggest show of purely commercial cattle in the country and it furnishes plenty of evidence of the skill of eastern feeders.

THE OLD PLAN

LAST October the wool producers of Australia attempted to maintain the price by restricting the amount offered. That appeared to be successful for a time. But the wool had to go to market sometime and when it went in large volume it had the inevitable effect. Now a system of control similar to the British-Australian Wool Realization Association is being discussed, but with little prospect of adoption. The best thing to do with the Australian surplus is to follow the old plan of getting it used up and out of the way, incidentally stimulating the use of it by all legitimate means. Fortunately fashion is again tending toward increased use of wool, and that will probably do more than all the schemes to restrict production, to limit selling or to control price through government action or official agencies.

FERTILIZER ON GRASS

THE effect of plant food on pastures, not only in regard to the extra amount of grass produced but also in regard to the nutritional properties of that grass, has been the subject of study by scientists and fertilizer interests. The results of such study indicate that a cow on pasture may have a full stomach and yet not get enough of some things to

supply her system, resulting in malnutrition and attendant ills. This is in line with practical experience and observation, which have been that cattle in certain places do better than in other localities, presumably because they get the needed minerals, vitamins or other substances. Whether it be done for the extra amount of grass produced or for the addition of some more or less mysterious ingredients in that grass the fertilization of pasture is generally profitable. It merits attention because of the probable deficiency of land from which generations of animals have carried something away and because of the importance of pasture in the successful management of most livestock.

FROM LIFE

FOR several years, back in the last decade, a certain breeder of pure-bred cattle held a successful annual sale. Each year he went out and bought a number of cattle because he had not enough of his own to make an attractive offering. As prices were advancing all the time he made plenty of money on what he bought and what he bred, so he decided to make a big sale and bought plenty of cattle for it. But before sale day came the boom in cattle collapsed. He had to sell his costly cattle at a heavy loss. Some men who owed him for stock bought at earlier sales were unable to pay their notes. Instead of being independent as he expected he barely escaped bankruptcy. As a breeder he would have made good money while the boom lasted and would have had little actual loss when it busted. As a speculator he merely went too far, as most speculators do sometime.

A LED BULL

THIS time let us quote from a letter written us by J. F. Wyant, Crown, Pa.:

"Charles A. Black, farmer, granger and highly respected citizen living near North Pine Grove, Pennsylvania, was gored to death February 18 by his five-year-old registered Guernsey bull. He and his twelve-year-old daughter lived together, the mother being dead. When the child came home from school she could not find her father and went to the neighbors for help. They found that the bull was gone from its stall and the neighbors, armed with lanterns and guns, followed tracks which led to a woodlot about twenty-five rods from the barn. There they found the bull standing over the dead man, a long rope tangled around some trees and bushes holding it fast, and they shot it with a rifle. Evidently Mr. Black had led the bull to the woodlot for water and exercise."

Another fatal result of leading a bull by a rope. Last fall we visited a big farm where over forty dairy-bred bulls were in service and found the attendants leading them around on the end of a rope, without staff or any other protection. Some day we expect to hear that one of these gentle bulls has hurt or killed somebody. From an account of Mr. Black's murder sent us by W. J. Geary of Clarion, Pa., we learn that this bull had been considered gentle. Most of the fatal bulls are so rated until they kill somebody.

FROM BAD TO WORSE

LAST week the wheat market made new low-price records for the current crop year. As this is written the price is over 50c per bushel below the year's high mark. While Europe will probably need more wheat during the balance of the year, which ends with June, nothing now in sight indicates a sufficient reduction in the supplies of this country and Canada. Crop damage may change the outlook materially, so may unfavorable seeding conditions in spring wheat territory, and these are likely to be the most important market influences in the near future.

It is assumed that the Stabilization Corporation has bought a large quantity of wheat; and the market has declined in the face of such purchases. Probably the current estimates of the Corporation's buying are high

enough or too high. For the sake of all concerned the operations of the Corporation should be made public. It is an institution established by a public agency and financed by public funds. For this reason as well as for sound commercial reasons its transactions should be published just as promptly consistent with correct information. The wheat market has to contend with plenty of uncertainties without any unnecessary incident to the operations of the Grain Corporation.

THE REDUCERS

THOSE who are preaching reduction in production are correct in saying such a course would probably enhance the value of the individual farmer's product. But if they view the matter from the point of the individual farmer they will find it so easy to tell him just what to do it is to tell farmers collectively what to do. It's not easy for a farmer to change an established rotation, to shift from one to another or to allow land to remain idle while he pays taxes and possibly interest. Yet some such things must be done if farmers are to follow the counsel to reduce production. What then becomes of the trine of efficiency in production whereby farm plant is operated to capacity? It will happen to the markets for other commodities if the farmer reduces the acreage and grows more of others? What of the warning and the same counsel is applied to practically all staples by official advisers. Farmers should study production from all angles, including the mentioned; but as a rule they will find profit in studying economical production less production.

A FREE FAIR

RUN on the old and usual basis the lawha county, W. Va., fair was successful from either a financial or an educational standpoint. The latter was the which County Agent T. Y. McGowan most concerned. So he proposed that which is in reality a joint or cooperative organization, should be made into a free without any charge for admission but of 25c for parking and 25c for admission to the grandstand. For several years his efforts were without effect; but he finally succeeded in guaranteeing good returns as the fair held on the old basis and his plan adopted. It was a success from the standpoint of attendance is limited only by the capacity of the grounds. The revenues from commercial exhibits exceed anything ever realized. Admission fees. As an educational institution the fair is more powerful than ever before. It has the support of all interests and is tended by all who can get to it. Mr. McGowan is very modest about his part in the development but he has every reason to be proud of it. Maybe some other fair is struggling along without getting where could profit by studying this fair.

CATTLE TARIFF

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Pennsylvania Farm Comment

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Mushing On

to them through the saving of labor by adequate lighting and by motors through the saving of fuel where electricity replaces coal or oil for cooking and lighting. Electricity has value in producing better products to sell as in the cooling of milk. It makes a water system possible in the home.

It was explained that service is taken out to rural applicants at the electric company's expense with current furnished at the same rate per K. W. H. as in town, provided the applicants will accept an adjusted minimum based on 2 per cent per month on the cost of the extension divided among the applicants in whatever amounts they agree to pay. There is also the fullest opportunity given for cooperation where the applicants may contribute labor such as pole hauling, hole digging and tree trimming which will be credited at the company's cost for doing the job and their minimum reduced proportionately.

Representatives of the electrical company serving Schuylkill county were present and said their companies were ready to extend lines and asked that farmers cooperate in ironing out a number of difficulties both groups are still facing. On a showing of hands, it was evident that farmers in Schuylkill county want electricity.

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R. W. Dunlap, National Assistant Secretary of Agriculture, addressed the group in their joint session with the Lancaster Chamber of Commerce at a luncheon held at the Brunswick Hotel. Secretary Dunlap did not assume the cloak of an alarm-

ist or of an ardent optimist, but rather pointed to the sensible fact that after all the farmer's great problem in this state is cutting his costs of production and in that field lies his greatest hope of increasing his returns. He called attention to the fact that farmers here and all over the country are paying more than their fair share of taxes. He advised Lancaster county tobacco growers to organize and join other tobacco growers' associations in the country.

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TO PROTECT SHIPPERS

LAST week the House Committee on Agriculture held hearings on the Summers bill (House bill 5663), which provides for federal licensing of dealers, commission merchants and brokers in perishable fruits and vegetables. Several states now have laws of this nature but they are inadequate because so much of this business is inter-state. There is great objection, and properly, to the extension of federal control of business; but that should not stand in the way of this legislation for the protection of shippers who cannot be protected in any other way.

COMMERCIAL CATTLE SHOW

CATTLEMEN in eastern feeding territory will be glad to learn that the Lancaster Fat Cattle Show will be held June 18-19, with the prospect of being better than ever. This show is unique in one respect—the cattle competing for prizes must have been bought as feeders at the Lancaster stockyards. This is the biggest show of purely commercial cattle in the country and it furnishes plenty of evidence of the skill of eastern feeders.

THE OLD PLAN

LAST October the wool producers of Australia attempted to maintain the price by restricting the amount offered. That appeared to be successful for a time. But the wool had to go to market sometime and when it went in large volume it had the inevitable effect. Now a system of control similar to the British-Australian Wool Realization Association is being discussed, but with little prospect of adoption. The best thing to do with the Australian surplus is to follow the old plan of getting it used up and out of the way, incidentally stimulating the use of it by all legitimate means. Fortunately fashion is again tending toward increased use of wool, and that will probably do more than all the schemes to restrict production, to limit selling or to control price through government action or official agencies.

FERTILIZER ON GRASS

THE effect of plant food on pastures, not only in regard to the extra amount of grass produced but also in regard to the nutritional properties of that grass, has been the subject of study by scientists and fertilizer interests. The results of such study indicate that a cow on pasture may have a full stomach and yet not get enough of some things to

supply her system, resulting in malnutrition and attendant ills. This is in line with practical experience and observation, which have been that cattle in certain places do better than in other localities, presumably because they get the needed minerals, vitamins or other substances. Whether it be done for the extra amount of grass produced or for the addition of some more or less mysterious ingredients in that grass the fertilization of pasture is generally profitable. It merits attention because of the probable deficiency of land from which generations of animals have carried something away and because of the importance of pasture in the successful management of most livestock.

FROM LIFE

FOR several years, back in the last decade, a certain breeder of pure-bred cattle held a successful annual sale. Each year he went out and bought a number of cattle because he had not enough of his own to make an attractive offering. As prices were advancing all the time he made plenty of money on what he bought and what he bred, so he decided to make a big sale and bought plenty of cattle for it. But before sale day came the boom in cattle collapsed. He had to sell his costly cattle at a heavy loss. Some men who owed him for stock bought at earlier sales were unable to pay their notes. Instead of being independent as he expected he barely escaped bankruptcy. As a breeder he would have made good money while the boom lasted and would have had little actual loss when it busted. As a speculator he merely went too far, as most speculators do sometime.

A LED BULL

THIS time let us quote from a letter written us by J. F. Wyant, Crown, Pa.:

"Charles A. Black, farmer, granger and highly respected citizen living near North Pine Grove, Pennsylvania, was gored to death February 18 by his five-year-old registered Guernsey bull. He and his twelve-year-old daughter lived together, the mother being dead. When the child came home from school she could not find her father and went to the neighbors for help. They found that the bull was gone from its stall and the neighbors, armed with lanterns and guns, followed tracks which led to a woodlot about twenty-five rods from the barn. There they found the bull standing over the dead man, a long rope tangled around some trees and bushes holding it fast, and they shot it with a rifle. Evidently Mr. Black had led the bull to the woodlot for water and exercise."

Another fatal result of leading a bull by a rope. Last fall we visited a big farm where over forty dairy-bred bulls were in service and found the attendants leading them around on the end of a rope, without staff or any other protection. Some day we expect to hear that one of these gentle bulls has hurt or killed somebody. From an account of Mr. Black's murder sent us by W. J. Geary of Clarion, Pa., we learn that this bull had been considered gentle. Most of the fatal bulls are so rated until they kill somebody.

FROM BAD TO WORSE

LAST week the wheat market made new low-price records for the current crop year. As this is written the price is over 50c per bushel below the year's high mark. While Europe will probably need more wheat during the balance of the year, which ends with June, nothing now in sight indicates a sufficient reduction in the supplies of this country and Canada. Crop damage may change the outlook materially, so may unfavorable seeding conditions in spring wheat territory, and these are likely to be the most important market influences in the near future.

It is assumed that the Stabilization Corporation has bought a large quantity of wheat; and the market has declined in the face of such purchases. Probably the current estimates of the Corporation's buying are high

enough or too high. For the sake of the operations of the Corporation it should be made public. It is an institution established by a public agency and financed by public funds. For this reason as well as for sound commercial reasons its transactions should be published just as promptly and consistently with correct information. The wheat market has to contend with plenty of uncertainties without any unnecessary incident to the operations of the Corporation.

THE REDUCERS

THOSE who are preaching reduction in production are correct in saying such a course would probably enhance the price of the individual farmer they point out. But if they view the matter from the point of the individual farmer they find it so easy to tell him just what to do it is to tell farmers collectively what to do. It's not easy for a farmer to get an established rotation, to shift from one to another or to allow land to remain idle while he pays taxes and possibly interest. Yet some such things must be done if farmers are to follow the counsel to reduce production. What then becomes of the trine of efficiency in production where a farm plant is operated to capacity? It will happen to the markets for other commodities if the farmer reduces the acreage and grows more of others? What of it? For the same warning and the same counsel is applied to practically all staples by official advisers. Farmers should study production from all angles, including the mentioned; but as a rule they will find profit in studying economical production less production.

A FREE FAIR

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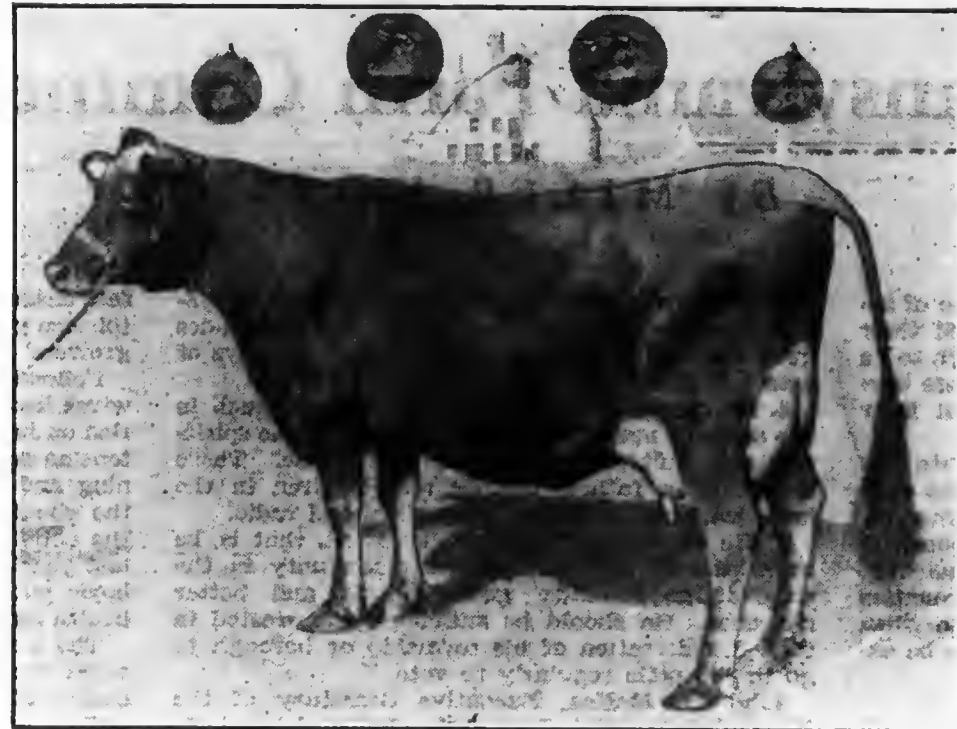
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The Education of the Cow

By A. A. BORLAND

A STARTLING change has taken place in the status of the dairy cow during the past century. Cows during the early history of this country freshened in the spring, gave a small amount of milk during the summer, went dry in the fall and frequently starved to death in the winter. At present an even hundred cows have each produced an average of over 38 quarts daily for a year and one cow has a yearly average of 47.6 quarts daily.

What has brought about this amazing change? It appears to me that it might be attributed largely to the "education" of the cow. Education, according to Webster, consists of "the knowledge, training or ability gained either by a system of study and discipline or by the experiences of life."

A few of the subjects that should be included in the course of study for every well educated cow are here presented for the consideration of the readers of The Pennsylvania Farmer.

Diet is the first subject which every cow, ambitious for an education, should study. On every hand we hear the terms, protein, carbohydrates, fat, fiber, minerals, calories, therms, vitamins, nutritive ratio, balanced ration, etc. In the race for efficiency a cow is soon lost without some first-hand knowledge of diet.

A Balanced Ration

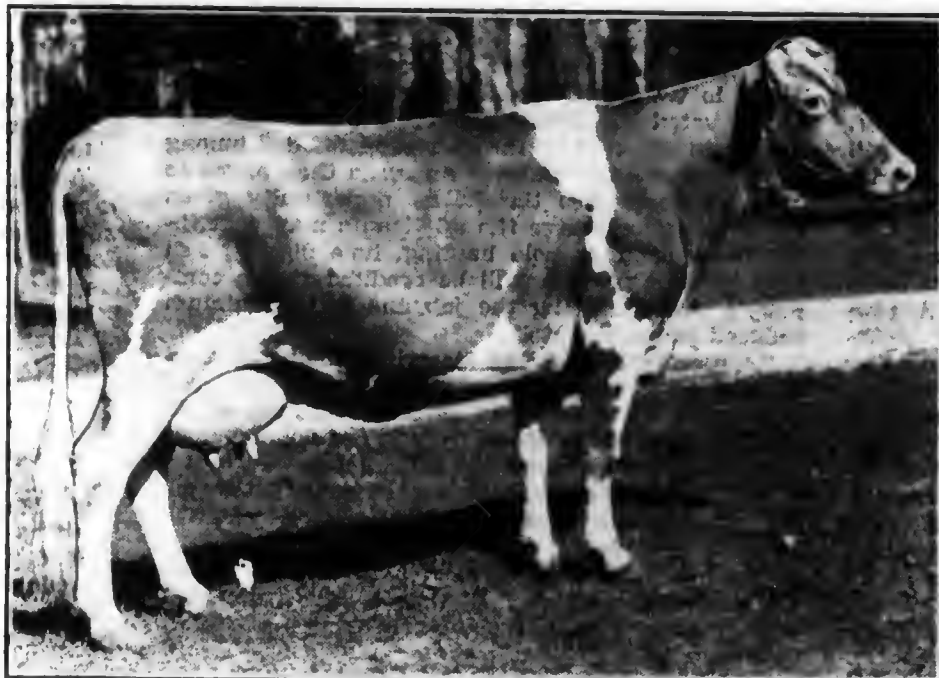
How essential this is may be noted from the experience of the cows at the University of Illinois. Two groups of cows furnished the information. One group ate an unbalanced ration consisting of corn, timothy hay, clover hay and silage, the nutritive ratio being 1:11. The other group received a ration in which part of the corn was replaced by gluten feed and the timothy hay by clover hay, the nutritive ratio being 1:6.

At the beginning of the experiment the balanced ratio group was producing 1.7 pounds more milk per cow than the unbalanced group. During the first week of the trial the increase was 5.8 pounds of milk daily for each cow of the balanced ration group and in the seventh week the gain was 13.2 pounds of milk daily for the balanced ration group. The cows receiving the balanced ration were also in better physical condition at the end of the trial than those receiving the unbalanced ration.

A second subject that all cows ought to study is efficient milk production. Sometime ago I read a book entitled "Taylor's System of Efficient Plant Management." Time studies were conducted to determine just how long it ought to take a fairly skillful workman to do a particular piece of work. The employees were then paid a certain amount per piece so that a skillful man could make a good day's wages. Unskilled men were taught how to do the work with the fewest possible motions and the least expenditure of effort and time.

How many dollars' worth of milk should a cow get from a ton of good clover hay? Some cows are efficient enough to get \$50 or more; others are so inefficient that they cannot get \$5. A dairyman should check the efficiency of his cows by actual records of milk yield and feed eaten such as are kept by a cow-testing association. A cow that cannot make the grade in efficient milk production should be given an opportunity to resign her place in the dairy herd and seek a more appropriate position on the meat block of the butcher shop.

Another subject which cows should consider is eugenics. What a lot of disappointment concerning her sons and daughters a cow would often be spared if she were more particular about the character and family history of the father of her children. "Like father like son" is an old adage that holds as well in the bovine world



This pure-bred Guernsey, Imp. Victor's Dandy Deanie, has been "educated" to the point where she produced 9,694.3 pounds milk and 520.8 pounds of butterfat in a year, making her the state champion in her class, which is DDD of the American Guernsey Cattle Club, Advanced Registry. She is owned by C. A. Lyon of Franklin county, Pa.

the elimination of reactors. There is an outbreak occasioned, it is said, by a purchased animal which proved to be a reactor, nearly the whole herd lost in 1916-17. After the stables had been thoroughly disinfected other cows were purchased to take the place of those lost. Each was purchased subject to test, was quarantined 60 days and retested before entering the main herd. The result is that a single diseased animal has not been found since 1917 and the herd has been federally accredited as free from tuberculosis since 1919. Many other herds have had a similar experience. Pennsylvania is one of the foremost states in the elimination of bovine tuberculosis.

Contagious abortion is another disease that demands special attention. When a cow aborts or freshens prematurely she yields only two-thirds to three-fourths as much milk as a normal calf is often dead or so weak that it does not survive and frequently the cow becomes sterile. The Connecticut Station found that about one cow in ten has had a contagious abortion. What we should do is cow annually than nonreactors.

Fortunately the same general principle is used in the elimination of bovine tuberculosis. The agglutination test for the detection of the disease and their separation from the healthy herd is proving a successful method of control.

College Experience

The College herd has also contributed its share of experience along this line. When first tested in 1926 about 40 per cent of the cows reacted to the agglutination test. Since January, 1928, when reactors were isolated there has been practically no trouble in the clean herd numbering 185 pure-bred animals.

There has recently been "much ado" about the possibility of humans contracting undulant fever from the same organisms causing abortion in cattle. As a matter of fact there are comparatively few cases of undulant fever and the danger has been exaggerated, as most milk is now pasteurized and pasteurization kills any of the brucella abortus organisms that might be present. Nevertheless, dairymen producing raw milk for fluid consumption will do well to get in touch with the Pennsylvania Bureau of Animal Industry, Harrisburg, with a view to the elimination of aborting reactors.

No cow education is complete without a course in sanitation. Clean milk creates a demand for more milk. Four simple rules will do it:

(1) A clean cow and a clean dry hand milker. The cow ought to be brushed off daily and her udder and flanks wiped with disinfectant before milking. (2) A hooped milk pail. (3) Sterilized utensils. (4) Prompt and thorough cooling. Bacteria multiply with frightful rapidity under favorable conditions. One may have a million descendants in twenty-four hours. Low temperatures check multiplication. The milk should be cooled immediately after milking to a temperature below 45 degrees F.

After a cow has produced a high quality milk at low cost it is in order to complete her education with a course in organized milk marketing. Much progress is being made in this respect. A majority of cows in the eastern states now market their milk through such agencies as the Dairy Men's Cooperative Sales Company, Pittsburgh; the Philadelphia Interstate Dairymen's Association; the Dairymen's League; or local cooperative milk plants; rather than each cow selling her own milk independently in ruinous cut-throat competition with every other cow in the community.

Fifty years ago cows were compared to a pig. (Continued on page 26.)

Junior Farmers Teach Celery Growing

By WALTER L. BOLLINGER

BOYS' and girls' club work has many elements to justify its existence, but in Schuylkill county, Pa., no phase of it is used to better advantage than when it serves as a medium of introducing desirable crops where none grew before. It is in this sense that club work has been the means of interesting certain farmers in celery growing in a county where the demand is large and the local supply practically nil.

Story after story is being written of boys' and girls' club work and the good it does in teaching better methods of farming, better care of livestock and better living in the open country. Yet few of us can estimate the sum total of the part it is playing in the evolution, or shall I say revolution, in agriculture. Certain it is that junior club work is the biggest single educational institution in country life today aside from the schools and the churches. The wise parents will encourage it, and whenever possible, opportunity should be given the children to enter some form of club work.

In the past we extension workers have not always pointed our club activities in the right direction. We have frequently advocated or allowed communities to select types of club work which were not adapted to the community. For example, it is useless to encourage pig feeding clubs in communities where no corn is grown. It is folly to advocate dairy club work in vegetable growing communities where nobody wants to milk a cow. What we should do is select crops or livestock that fit into the community, or have possibilities which perhaps the community has overlooked.

Here in Schuylkill county we have a population of 220,000 people with a relatively small farm population. This provides a market for all sorts of foods in greater quantity than is produced locally. While the county has no large cities it has the car-marks of a metropolitan district. Vegetables are grown nearby and are in big demand, while such products as milk have until recently been almost entirely shipped in from nearby counties.

On the whole our farmers are growing enough for more than enough of the stable vegetables in season. Human nature is the same here as everywhere, and farmers cling to the crops of twenty years ago very tenaciously but are slow to meet the demands for the finer and more popular crops such as asparagus, spinach, lettuce and celery. There are carloads of these vegetables consumed in the county during the season, but it is most difficult to find many farmers who have been growing any of the crops named above for market.

Only here and there can such men be found. We understand perfectly well that our soil is not a natural vegetable soil as is found in New Jersey, and we know that we cannot grow iceberg lettuce in our climate. Yet there is ample evidence that even if growing conditions for most of these crops are not ideal marketing conditions are exceptional.

With a knowledge of the above production and marketing situation at hand, and with the further knowledge that vegetable consumption is increasing more rapidly than the population, boys' and girls' celery clubs have been organized in various points of the county to introduce a crop which is scarcely grown.

If the boys and girls could prove that celery growing is practical and profitable in the county then it should be an easy matter to interest the parents. That was our supposition and it proved to be correct.

In organizing a celery club we have been using just 500 celery plants to a boy or a girl. They are grown by commercial plant growers and delivered to the member at \$3 for the 500. Celery of the Easy-blanching variety is grown, as it proved to be a more vigorous grower than the nationally known Golden Plume variety.

The plants are set out six inches apart in the row and about thirty inches between rows. Planting is done on the level and not in trenches. The more humus in the soil and the more moisture, the better it is for the celery. The celery is set out from July 15th to August 1st, and is kept growing as late in the fall as weather permits. Blanching, on a small scale, is done with boards.

The more successful growers watered their celery several times during the season. A few irrigated the small plot with a hose, though this is not practical on most farms nor necessary in normal years. There is no question, however, that water is the biggest factor in successful celery growing and that if much is grown, some form of irrigation should be available.

Each year we find some failures and some outstanding successes. Usually the farms where the parents are good truckers produce good celery.



W. B. Nissley, specialist in vegetable growing, inspects celery field of Ethel and Howard Mengel.

The successes have been frequent enough and outstanding enough to induce the parents who never before grew celery to grow some themselves. That is the best proof of the value of club work.

In our several years' experience with celery in the county no better celery was grown and marketed than that grown last season by Marion and Minnie Gauker of Cressona. They together set out a total of 1,000 plants in July. A short while before Christmas they completed their marketing. The complete records show receipts of \$96.33 or almost an average of 10c per stalk. Most of it was sold retail. A part was sold wholesale at \$1.20 per dozen stalks. The retail price ran as high as 20c per stalk with a few stalks selling at 25c. This was



Stella, Nelson and Donald Bensinger. Donald, the youngest of the trio, was substituting for his brother LeRoy, who was in school.

one of the most profitable club projects ever conducted in the county.

The farmers have spoken much of the quality of their home-grown celery. It was very fine to find the farmers satisfied, but what did the consumer think of it? This was very easily determined after visiting a few customers and the stores which handled some of the celery. The answer to the question "How did you like the club celery?" was found in the smile of those questioned. The answer was universal: "Wonderful, but it is all gone. We can't get any more."

It is up to the farmers to get more next season and in years to come. In the meanwhile, we have a lot to learn in selecting the right variety of celery, in finding the best methods of growing, and in storing some celery properly for early winter sales. It is a worthy project which got its start through boys' and girls' club work.

Care of Shrubs

A LOT of the farm homes in the country that have roses or flowering shrubs around the doors and yards have them covered with oyster shells or other scale insects. A good time to clean up these bushes is in March by giving them a spray of one of the commercial oil sprays now on the market. These have greater penetrating powers than lime sulphur and most of them if you do a good job will do a good job themselves.

If you haven't a sprayer available, dilute according to directions and take a paint brush or whisk broom and paint your shrubs, but be sure to cover all sides of them with the oil preparation. Don't use any stronger than the manufacturer recommends. In fact, it wouldn't hurt if you diluted a little more, for too much oil might harm your bushes somewhat.

This is a good time of the year also to prune shrubs and roses. It won't hurt to cut roses back hard except the climbers, but the shrubs that flower early should not be sheared off, only thinned out and the old wood removed. If you want to cut them back, wait until after they have flowered, say the last of May or first of June. Those that flower from June on may be pruned any way you like but the early bloomers have already set their buds and if you cut away too hard you cut flowers.

Mercer county, N. J.

A. C. McLean.

The Robber Lawn

OUR farm like many others in the same community boasted a big lawn. We had the customary lilac bush with hundreds of young sprouts about it, snowballs, snaggy apple trees, a walnut, half a dozen sickly cherry trees that had not had a crop for years, spirea, syringia, peonies, iris, flower beds, little evergreens and all scattered haphazard after the old-fashioned idea of landscaping, and some really good maples.

But nearly two acres front and back were not only robbing us of income, but a forlorn nuisance to keep clean and tidy. So we boldly laid the axe at the root of the worthless trees, turned the back yard into a vegetable garden and cut off the sides of the front lawn in spite of the predictions of our friends that we would ruin everything. It took some nerve, I'll admit, to slaughter ruthlessly, and move what we wanted to save up close to the house, for my father and mother had planted many of the sickly old shrubs and fruit trees.

But it worked! Everybody says we did the farm a thousand dollars worth of good by having a general cleaning up. The transplanted flowers of my parents are doing better in the new sunny garden than ever before, and there is a good income from the robber acres. More than that, the lawn is small enough not to be a nightmare to mow.

We do not mean that we should denude a place of beauty or make a change which detracts from the appearance of the home, rather the opposite, for the improvement should always be carried out with thought and sympathy. Proper arrangement and intelligent choice of materials are as important in the layout of home grounds as anywhere else. But today we do not have the time or the space in any places that were so common formerly. The important thing was that we combined beauty with economy of land and labor.

Economist.

THE long-boat might have succeeded in beating a safe retreat if it had not run into a pod of sleeping wild-fowl. The rustling clatter of wings betrayed their position as plainly as if a searchlight had been thrown on them, and drawing in his oars, Bartlett lifted a rifle from under a bundle of oilskins in the stern.

"Steady, boys," he ordered. He listened an instant to the sound of the oncoming motor-boat and fired.

"I reckon they won't try to run us under now," he commented grimly.

"Did you hold on them?" asked Toots with an unsteady voice.

"What d'you think?" Bartlett laughed roughly as he expelled the empty shell from the magazine. "I'll wing one of the cusses, too, next time."

Suddenly the motor-boat opened fire. A hail of bullets whirled past with vicious whinnings. There was another sound, distinct but low, the unmistakable sound of a ball striking flesh, and Crumb dropped his oars with a gasp of pain.

"Got me!" he said with a kind of dazed wonder. With their best oarsman crippled there was no doubt now that the jig was up.

But Bartlett was not the sort to stand by his friends and take their medicine with them if desertion held out a chance to save his own skin. With cowardly quickness he grasped the tough sedge rimming the marsh wall against which they had drifted, and pulled himself up. Before the others had time to perceive his intention he was off, lost instantly in the misty darkness, the noise of his splashing footfalls floating back indistinctly to their ears.

Where Bartlett could go they could follow; and acting on the thought Toots scrambled to the top of the slimy wall. "Give us your hand," he said, extending his own.

Crumb's right arm hung powerless, crippled by the bullet. He put his left hand into Toots' and with a groaning grunt succeeded in reaching the level. But when he had done this he said: "You leave me yere, boy. You ain't in this an' I deserve all that's comin' to me."

Toots refused to consider this. In a fever of impatience, for the motor-boat was drawing near, he caught the man's left arm and urged him to fly. Crumb yielded and they started through the sedge.

No sounds of a pursuit across the marsh reached them. The men in the motor-boat were evidently too cautious to expose themselves to an ambush in the long grass by armed and presumably desperate poachers. When Toots and Crumb reached the opposite side Toots roughly bound up his companion's arm. Fortunately it was low tide, or they would have been marooned where they stood until morning. As it was, little more than four feet of water was running in the deeper channels while much of the distance between them and Mink Island was dry flat. Though the night was very dark the wind and that sense of direction inherent in most men who follow the water gave Crumb his course. The shock of the wound seemed to have brought him out of the trance-like state he had been in for several days, and he blamed himself bitterly for what he had done. Once he started to quote from the Bible, but broke off abruptly.

"I ain't no call to take the words of that good book in my mouth," he exclaimed. "A low-down sinner like me. No matter how black things look, Toots, don't you ever go back on His teachin's. There ain't nothin' in this world, nothin' whatever, that a man can't bear like er man, 'cept a guilty conscience."

"I'm sorry I made that racket," said Toots. "It was low-down mean."

"It was right," retorted Crumb. "I'm glad you did it."

An hour and a half later, utterly done up and chilled to the bone, they crawled up the slippery apron of mud that fringed Mink Island. Crumb was barely able to reach the steps of the shack where he sank in a fainting condition. Toots staggered into the revivifying warmth of the watch-house kitchen.

"They shot your brother—through the arm," he said to Eden with chattering teeth. "Bartlett ran. You're pirates, the whole lot of you."

Eden bounced out of his bunk, white and trembling, and began to dress, assailing Toots with incoherent questions. But the latter picked up the smoking coffee-pot from the stove and a cup and ran out.

A stiff drink of the strong, hot stuff revived Mark. He entered the shack and confronted his brother with an air very different from the strange one he had worn lately. Eden, half-dressed, sank back on his bunk apprehensively.

"Do you know what I think of you," said Toots to Eden. "You're a slacker. Playing off you had the rheumatics so you could get your brother into this and keep safe yourself. He'd never have gone

A Thinking Job

By Fisher Ames

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into it if you and Bartlett and Sheppardson hadn't made him. I heard you-all working at him."

"I'm mighty upset you got hit, Mark," stammered Eden, moistening his lips. "Is it bad, ole man?"

Mark paid no attention to the question. "I ain't goin' to reproach you, Eden," he said solemnly. "You worked on me, but I give in, so I'm as bad as you. But you'll listen to me now, Eden. There'll be no more of this business. We'll go straight, so help me, if we lose our last cent doin' it. I'll never tech another shell that ain't mine if I know it, nor you won't neither, or we'll part comp'ny for good an' all. An' we're done with Bartlett. I don't reckon he'll care to show his face again, but anyhow we're through with him. You understand me, Eden?"

Once roused Mark was by far the stronger character morally, as he was physically. His brother cringed under his firm, indignant tone, and signified by shame-faced, indistinctly muttered excuses that he was willing to go straight.

"I'll see you do," said Mark significantly. "Now help me off with these clothes an' wash up this bullet hole. Pears like your rheumatics ain't so troublesome, like Toots says. Maybe things won't be so bad if you do more tongs an' less tonguein'."

After his wound had been dressed and Toots and Eden had gone to bed, in spite of the lateness of the hour, Mark took his Bible to the table and sat down to read. His expression had changed entirely. There was remorse in it, but the old look of doubt and turmoil had given way to one of deep, almost happy humility.

The next morning Eden was the first to rise. His rheumatism seemed miraculously to have vanished. In a very chastened mood he got the break-

fast and prepared the power-boat for a run to town where Mark wished to have his wound properly attended to by a physician.

"You'll be quittin' us, I reckon," observed Mark, as he saw Toots packing his duffle-bag. "I don't blame you."

He paid Toots his wages and they locked up the shack and went down to the boat. Hardly a word was exchanged between them during the run. When they reached Carbury landing Mark held out his left hand and wished Toots good luck. "Jest remember, Mark," he said, "I don't blame you."

He said Toots his wages and they locked up the shack and went down to the boat. Hardly a word was exchanged between them during the run. When they reached Carbury landing Mark held out his left hand and wished Toots good luck. "Jest remember, Mark," he said, "I don't blame you."

Toots, thinking hard, walked along the shore with Hector by his side. The roll of the stone had certainly not been a success this time, but it had eliminated the oyster business from further consideration, which was something. What sort of a job was left in or around Carbury that he could tackle now? Toots raised his eyes and looked at the little town speculatively. He had studied the various hotel circulars received in Colonel Jersey's mail from time to time and realized, if the Colonel did not, the impossibility of any competition with the numerous southern resorts that offered to their patrons a gay life, with golf, tennis, automobile-ing and all the other social sports. On the other hand Carbury did offer a quiet, quaint picturesqueness and most excellent shooting and fishing. It would never be a fashionable resort, such as would attract women and young people, but why shouldn't it appeal to men? It was a man's place.

Daddy Simons was working in his garden when Toots reached the cottage. "Well, well, if the rollin' stone himself ain't returned!" he exclaimed. "Never mind my little joke," he added, perceiving Toots' expression. "I'm right glad to see you with that there duffle-bag. I hope it means you've quit the fleet, son."

Nancy, hearing her father's greeting, ran out, overjoyed to welcome Toots back again. They sat down on the steps while he told his story and later, the dinner hour intervening, continued the talk at the table. Daddy had his own news to impart, the principal item of which was the disappearance of Captain Tigert.

"What you told the crowd that day you left brought about a raid on the store," said Daddy. "Tigert saw it comin' an' knew he couldn't face it, but he got round to Jepson, that he leased the store from, an' sold him the stock before the old man knew there was trouble afoot. Then he skeddaddled an' they ain't found har nor hide of him since. They won't neither. I reckon he's hid himself out West somewheres. They found whiskey all right, though, in those sealed bags of Red Mill. Now they're huntin' down that concern. Jepson's been runnin' the store hand-to-mouth. Why don't you step in, Toots, an' get the job?"

"I DON'T want to keep store—for somebody else," replied Toots decidedly. "Look here, Daddy. What do you say to starting a sportsman's hotel, in a small way. You know how the Colonel trained me. I've got two hundred and fifty dollars—and myself—to put in. I've got some ideas, too. You've got just the place for it, a couple of boats, and a big lot of live decoys. And you like gunning as much as your father ever did. I've been thinking about those names in the kitchen. If your father could get men to come from New York and those far-off towns, why, we could."

"The Colonel didn't advertise in the right way. We can. This place is a man's place, and I reckon there's enough men who can afford to pay for good shooting and fishing to fill a hundred hotels. We-all may be short on style, but we're long on sport. We've got the best there is, and no competition."

There wasn't a lazy bone in Daddy Simons' sinewy frame, but he had jogged along in a rut for so many years that any initiative and enterprise he might once have possessed had more or less evaporated. But he could dream still, and one of his dreams was to have enough money to leave Nancy comfortably fixed. In spite of the discrepancy of years between them he had a good deal of respect for Toots' judgment. There was a quiet force and decisiveness about Toots that had always made Daddy believe he would go far. As he had often said to Nancy: "A fellow that's eternally thinkin' of gettin' ahead won't come in last in the race."

A little dazed by the unexpectedness of the proposition, he turned hesitatingly toward his daughter.

"What'd you say to this fool plan?" he asked, smiling.

"I say we'd be fools not to consider it," retorted Nancy.

"I'd hate to have my own child put me in that class," said Daddy. "It looks like we-all better talk it over."

(To be continued.)



A Peppy Patrick's Party

By GERTRUDE S. STEWART

PATRICK'S DAY has become one of the most jovial of the entire year. If you want to give a jolly party, start it off with gay decorations. Make or buy bright green shamrocks and write your invitations with white ink.

When St. Pat's Day is here
That's a time of shure good cheer!
So at eight to dance—to frolic so hearty,
To sing—old dances—to frolic so hearty.
Nora & Mike Murphy.

Decorations are not difficult for this gala occasion. The Kelly Green crepe paper is so bright and cheery that streamers and shamrocks may be used abundantly wherever possible—on curtains, doorways, dolling up the tablecloth, etc. Green balloons give the home or church, the hall or clubhouse a buoyant spirit, so have them tied up here and there.

Keep the piano or phonograph busy as guests are arriving. Put every one in frisky mood by playing the old Irish airs, such as The Machree, Where the River Runneth Floweth, Put the Pig in the Pot, and Kathleen Mavourneen.

Home Games for Old and Young

Blowing bubbles.—This is a good evening frolic. Give each guest a pipe and group them about nice bowls of soap suds where competition may be keen as to who can blow the biggest bubble, the highest one, and the longest-lasting one.

Games may be given in each race, and know of nothing nicer nor merrier than to use little high hats so real of the day, for prizes in all games. Fix them with ties or elastic to fasten on under the chin. Winners wear them all evening.

Potato race.—A quiet sitting game good for next so give each man a fat spud and a dull silver knife.

Ladies act as judges and "rooters" in this speed contest. The idea is to peel who can be first to finish his potato and keep it all in one piece. Thick peeling should be encouraged.

Spring styles.—Now is a good time to have another quiet stunt, so pass green lollypops to each man, or perhaps to each couple. On a nearby table have ready plenty of green crepe paper, scissors, needles, thread, paste, wire and pins. See who can dress the best shepherd, policeman, sailor, or Irish character.

Barney.—Select one guest as first to sit out in the center of the room. Each guest in turn says "Barney" about this central figure paying nice compliments, made as mirth-provoking as possible. The complimented one keeps calm and grave. If he smiles creeps over the face, the chair goes to the one who caused the pucker, and so the game continues until all have been "barneyed."

Guess what.—On the back of each guest pin a card with a symbolic of something Irish. Let no one know what his tag reads. Some words that may be used are: shamrock, lilies, snakes, shamrocks, lakes, rabbit's foot, potatoes, jokes, horseshoes, carriers, horse shoe and so on and on. You can't think of enough to go round, it is better to have two or even more out together. The wearer of each tag tries to guess what his tag means by the antics or questions or suggestions of the others. Whoever leads to the real "give-way" is the winner in the guessing, until all have learned their tags.

What Shall We Eat?

Sandwiches, salad, potato chips and shamrocks make a colorful and pleasing lunch for any and all. Coffee for adults and lemonade for children make the drinks. For favors, make dear little pigs of sweet pickles with pieces of tooth picks for ears and parsley stems for tails.

Make the sandwiches of chopped olives and nuts. For tasty effect serve an open sandwich of

The Farm Home



A New-Old Industry for Health Seekers

By HEPSY NEFF

PERHAPS consideration of health has brought the use of goat's milk more and more to the front in recent years. Today the medical profession agree that the goat and its products are more free from disease than any other of our domestic animals. Besides, goat's milk is a dependable corrective of the acidity which lies back of our rheumatic and many other pains.

That California has led in the dairy goat industry is what might be expected of a population bidding for the favor of health seekers. That Switzerland is the home of some of the best milk goats as well as the home of a progressive people who hold an unquestioned place in history both present and past, is another fact to be considered when we are seeking a basis in estimating values.

Another interesting fact that must be considered is that the oldest people of the eastern world were and are still using the goat as the chief source of their supply of animal foods. The oldest books of the Bible bear witness to the value of the goat in Hebrew history. Perhaps that fact, coupled with the tent life of ancient races explains the record of long life among these people. When Moses at the age of one hundred and twenty years, climbed to the heights of Pisgah never to return, "His eye was not dim nor his natural strength abated."

Today users of goat's milk are repeating some of those old experiences in gains of health that seem marvelous. Another interesting fact revealed in the study of this new-old industry is the number of women who are finding new health along with both profitable and interesting occupation in keeping a few goats. Perhaps this work may yet take the edge off some of our big agricultural problems of today. Even farm folks are inclined to compare the demand for big and increasing incomes with the old days of smaller farm incomes plus the satisfying sense of security in home, job and plenty of good food; a compensation which holds good today.

Some of us have learned that a bank account and a competence for old age grows more surely from a decrease in outgo than from an increase in income. But back of that condition must lie a challenging independence of thinking and habit which is not acquired in a day. Accustomed as farm folks are to the dependable resources of nature we are in danger of forgetting that man-made values are on a different level, not always dependable and sometimes distinctly disappointing. Only as we learn to keep a challenging "Why?" ready for every new demand upon our time or our purse can we really hope to be masters of our circumstances or in any sense masters of life. There is help in remembering that the outstanding quality of all the monkey tribes is imitation; copying everything they see.

Some good day we shall see where mere copying leads us, whether in fashions or in any phase of conduct and we shall determine to be less monkeyish and more intelligent and independent human persons.

School Lunches

ARE school lunches bothering you? Circular 125, on "The School Lunch" is new, and free from Pennsylvania State College, State College, Pa. Farmers' Bulletin No. 712, "School Lunches," may be had by addressing a card to United States Department of Agriculture, Washington, D. C. Both of these bulletins are useful for hot or cold lunches. Fine P. T. A. projects, too.

Noon is the time recommended for the small child's largest meal.

After laundering corduroy or velveteen squeeze it dry with the hands, for the wringer makes permanent creases.

crisp crackers spread with butter and minced parsley.

Pineapple salad is good and pretty. A crisp lettuce leaf, a slice of pineapple filled with a mound of cream cheese topped off with an Irish flag of green watercress, celery leaf, or again parsley. Salad dressing with this salad.

The shamrocks are simply your very best round cookie decorated in keeping with the day. First ice them with white icing—whatever kind you prefer. Have ready material to fashion shamrocks while the icing is soft. Gum drops are ideal for this trimming. The green ones cut in thin slices make nice round sections for the three shamrock parts. For the stem cut them lengthwise, and curve them slightly when you place them.

During the feasting, tell good old-time Irish jokes. If you fear folks will not warm up to this, have a good one written on paper for each plate. This reading will start things off briskly and soon many others will be recalled by your guests. You will probably need to stop those ever anxious to say: "Oh, that makes me think of a good one, too."

Every Day Foods

FOODS needed each day are: an egg, a quart of milk for children and a pint for adults, fresh fruit including citrus fruits or tomatoes and be-



Table decorations will help make your St. Patrick's Day party go with a swing.

sides potatoes, two servings of vegetables, one of which should be a green leafy vegetable.

Correctly planned meals promote long life and sustained health, according to the New York state college of home economics at Cornell University. Even plenty of appetizing food may not supply certain essential materials which must be included each day if health is to be maintained. Health cannot be built overnight; it is the reward of right food and correct health habits practiced daily.

Over-cooking of vegetables is a common cause of the prejudice against them.

If the lock sticks, try oiling the key and turning it several times in the lock.

The child's confidence in himself depends on the confidence his elders put in him.

Save fuel, time and strength by cooking as many foods as possible while the oven is heated.

Occupation for Little Ones

CUT pictures out of old magazines and catalogues. Paste them on mustard jars, jelly glasses, etc. After the paste is dry, cover with a coat of shellac. These make clever vases. My daughter covered tin cans in which I planted flowers. She made flour paste, using a spoonful of flour to two and a half spoonfuls of water, and a tiny bit of sugar to prevent the flour forming lumps. The shellac was purchased at a hardware store, which was the only expense for my pretty flower pots.

My fourteen-year-old son painted the living-room floor while out of school during the Teachers' Institute, and while it isn't as good a job as an experienced painter would have made, it looks much better than it did, and gave him some valuable experience and much pleasure.

Mrs. W. E. Hebel.

Chicks from Blood-Tested Stock
 Pennsylvania Supervised Flocks.
 Shipped C. D. D. Free Circular.
Sunnybrook Poultry Farm, New Berlin, Pa.

You are now ready to place the concrete for your floor. On heavy, **Bayer-Semesan Company Inc.**
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CAL LABORATORIES CO
Nightingale Bldg., Phila., Pa.

Mrs. H.

Hatches every week. 100% live delivery Post paid.
Circular Free
Clear Spring Hatchery, Box 49, McAllisterville, Pa.

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| \$12.00 per 100 | \$57.50-500 | \$110-1 |
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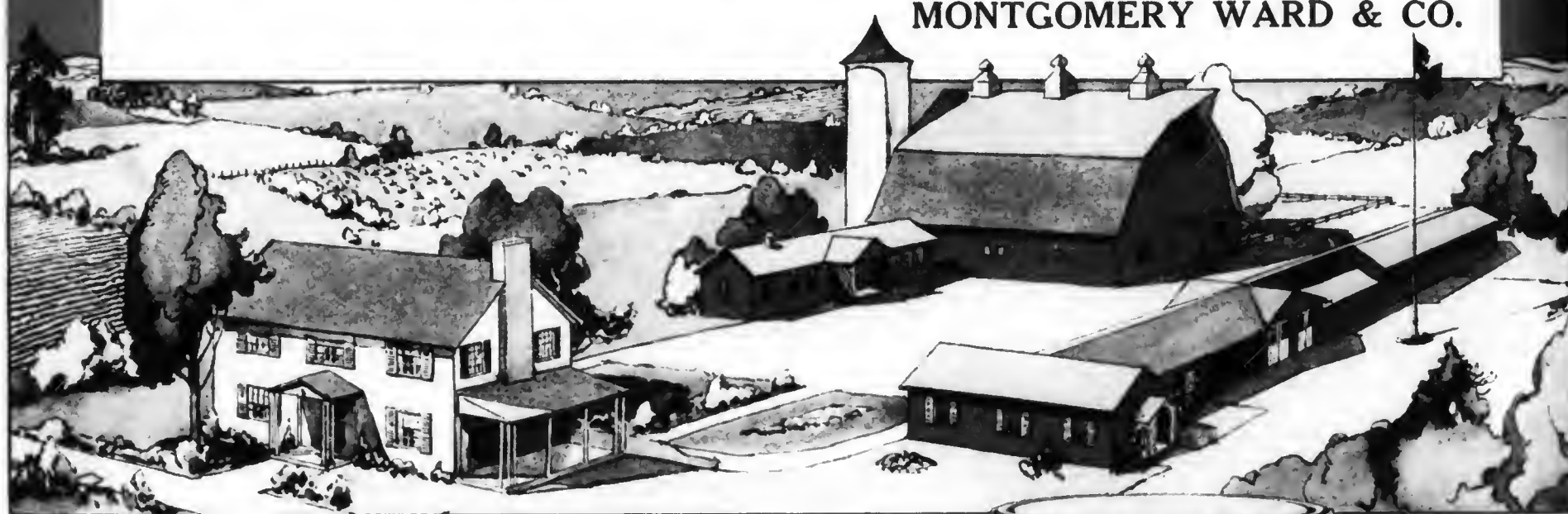
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Hudson St., New York, N.

"If this paint does not wear as long, look as well, and go as far as the highest-priced paint made we will furnish new paint **FREE** and pay for putting it on". . . .

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Our nationally famous WARD-SET Brushes, made of pure Chinese hog bristles that absolutely will not loosen or shed, are the ideal companions to these quality paints. Every brush will pass the weight-test illustrated, and we supply a complete line for all painting, varnishing and enameling purposes. WARD-SET Brushes are lower priced than usual . . . and their performance always dependable.

Any of our 550 Montgomery Ward Stores throughout the nation is ready now to supply your painting requirements—not only satisfactorily, but at a real saving.



WARD-SET Brush,
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Tested under 200-pound pull, and in gasoline, oil, water, alcohol and acids—WARD-SET Brushes never shed a single bristle from their Bakelite setting! This 4-inch brush has finely-balanced handle; gives smooth flow on any surface.
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He will show you the U. S. Peerless, an entirely new tire. It is built of the same high quality cord and rubber as the U. S. Royal, but it is priced lower to meet the farmer's demand for a first-class high-grade tire at a very low cost.

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standing heavy service tire of all time—the U. S. Royal Heavy Service—in balloon or high-pressure.

To choose among these three great tires you have only to consider how much or how little you want to pay for a tire—and what you expect that tire to do.

Your U. S. dealer will not only tell you honestly which U. S. tire is best suited to your needs, but he will put on the tire for you, see that the inner tube is properly fitted, check your air valves, check your wheels for alignment and see that your tire has the proper amount of air in it.

And when, any time after, you want service of any kind, that same U. S. dealer is around the corner or down the road to give it to you. No need to conduct a correspondence with HIM. Your telephone takes the place of your fountain pen!

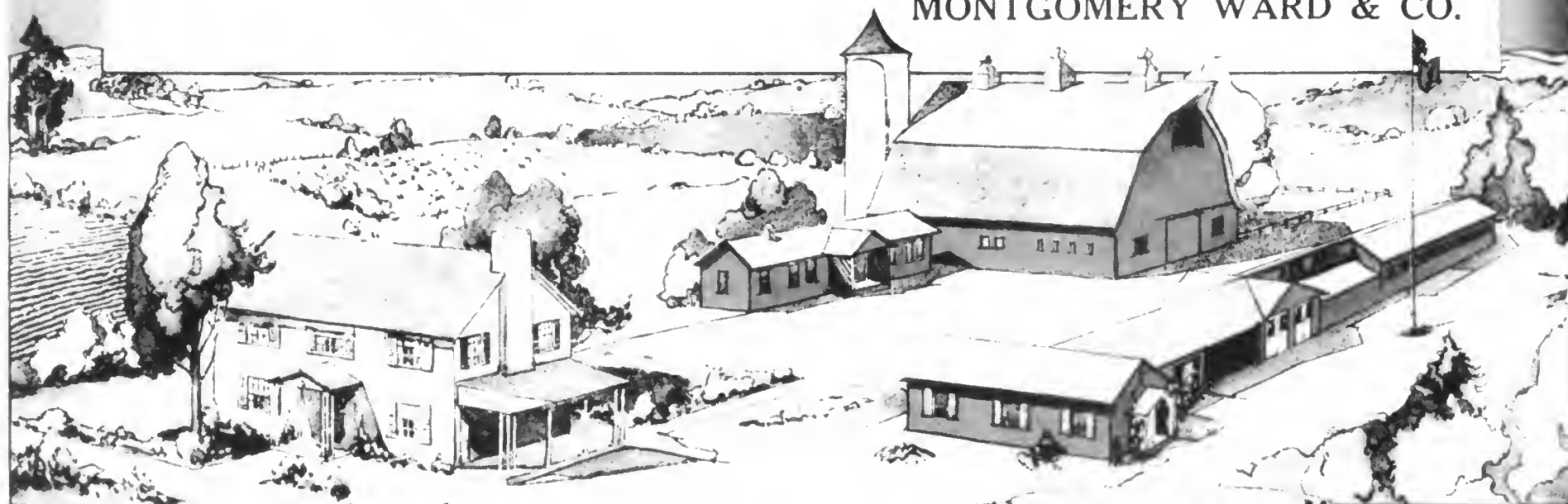
And more important still, every U. S. dealer stands back of the tire he sells you—and back of him stands the United States Rubber Company, the world's largest producer of rubber. This great organization, with a worldwide reputation for square dealing, is just as anxious as your dealer to see that you are perfectly satisfied with any product that bears its name—a name that extends back to the very beginning of the rubber industry.

Call on the U. S. dealer. You will be surprised to know how much U. S. mileage you can get for so little U. S. money!



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 a saving of \$
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MASTER PAINTS
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 can be made. Meets
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 gallon. Choice of
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United States Rubber Company World's Largest Producer of Rubber

The McCORMICK-DEERING Tractor Line Gives You POWER for EVERY Need



This is the powerful 15-30 McCormick-Deering. It pulls four plow bottoms in all average conditions.

YEAR after year the man who centers his farm operations around the McCormick-Deering tractors gets the utmost out of modern power farming. The reasons are plain. McCormick-Deering tractors are simple, sturdy, highly perfected, standardized models, built with every conceivable advantage and feature, designed by International Harvester skill to work with the full line of McCormick-Deering power farming equipment.

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For big-capacity operations on the medium-size and larger farms, take the powerful 15-30. In the field shown above it is turning beautiful furrows at a rapid rate. The powerful 15-30 puts a big day's work in one man's control the year through. Cash in on its generous power and economy during tillage and seed-bed preparation, grain and corn harvest, and the heavier belt and power take-off jobs. Note the list of 15-30 features at the right.

The 10-20 and the Farmall

For smaller operations the McCormick-Deering line offers the 10-20 (built just like the 15-30), and the Farmall. The popular Farmall, shown here with a 4-row cultivator in a corn field, is a true all-purpose tractor in that it also handles the planting and cultivating of row crops. On the majority of farms the Farmall completely solves the power problem, whatever the crop or operation. On the larger row-crop farms it frequently supplements the power of the 15-30 McCormick-Deering.

McCormick-Deering tractors have stood every test in years of service. Nothing has equaled their work in cutting the costs of production. Make full use of McCormick-Deering power during 1930. Displayed and serviced everywhere by the McCormick-Deering dealers.

Catalogs on request

INTERNATIONAL HARVESTER COMPANY
606 So. Michigan Ave. OF AMERICA
(Incorporated) Chicago, Illinois

McCORMICK-DEERING

"Assurance Doubly Sure"

FRANK K. RICH

"WHEN a man goes to work to make a sure thing even more certain," observed Mr. Peaslee when Deacon Hyne had been recounting to him an experience which savored more or less of that motive, "more times than even he'll find he'd have done better to let things take their own way and welcome his luck the way it comes."

"Mebbe you're right," the deacon conceded, but doubtfully. "Whenever I hear of a case such as you've just been tellin' me about," Caleb went on, "I'm put in mind of Jim Pallbush, the time he thought he'd get the best of things. He'd always been more or less given to makin' things too safe; but he got cured of it by a set of happenin's that took place all in one day, so that from then on Jim was more like other folks, and let things happen or not happen, the same as ordinary men have to."

"Jim was a good neighbor," Mr. Peaslee admitted, "and his proneness to make safeness safer wa'n't really an out. I don't s'pose; it only made him hard to work with."

"I reasoned with him about it once, when I was helpin' him shingle his barn and noticed him drivin' three nails into every shingle, no matter how narrow it was. He told me he done it to be sure the shingle would stay there."

On the Side of Safety

"Well," s'I, "two nails'll hold it there 'til it rots—and three won't do any more'n that. That third nail looks like waste to me," I says. But I couldn't move him in his b'lief!

"And he was like that in all his doin's—do all any prudent man'd do and then a little more on the side of safety. It held him back in his work and held him back in his profits, too. But he claimed no man was ever the loser for a little extra care and said when he'd lost by it would be time 'nough to change his ways—so I give up arguin' with him!"

"Well, there come a day when I was over with him to help him ferry some stuff across the pond—lamps and dishes and one thing and another that old lady Burpee gave Jim's wife. We had a canoe and we loaded the truck careful and made a good crossin', by holdin' steady and hardly shiftin' a laig on the trip. When we landed back on the near side of the pond we found we'd got too much of a load for two men to lug, so Jim d'cided to go up and git a hoss and his porter wagon, with a thick layer of hay in the bottom to take the jar and save the lamps and things from gittin' broke. But fust we had to unload the canoe and git it out of the water."

Expects a Shower

"I helped him haul it up on the shore and s'posed that was all needful to be done—but it wa'n't, not 'cordin' to Jim's notion. He give a look at the sky and seemed to find some sign of rain there, though I couldn't see anythin' near 'nough to hurt. But he figured, to be on the safe side, he'd better drag the canoe up next to the fence and turn it over, in case the storm was hard 'nough to make waves; and then it come to him that it'd be better to turn the canoe over the lamps and things, to keep 'em dry, in case."

"He picked out a place where the fence wa'n't over a foot 'n' a half high, 'count of there bein' a little grass there to pile the things on. I noticed a pair of young cattle in the pasture but I didn't mention it, thinkin' that it didn't become me to p'int out dangers to any man as careful as Jim was. Still, I couldn't help givin' a thought to what might happen if them cattle got to nosin' 'round that low place in the fence, after all the pains Jim had gone to, p'ilin' the

things up there to make 'em more safe, you know."

"Well, after we'd got 'em stevedored to his likin' we put off up to his house, to git the hoss and wagon. By that time the shower, such as it was, had dissolved, 's you might say, so all the extra pains Jim had gone to was wasted. I didn't mention it, partly because I knew he'd thought of it, by the way he looked."

"It took us some time to go to the house and back and whilst we were there I heard some noise—cattle bellerin' and dogs barkin' down in the pasture. I wondered a mite what it might be, but Jim didn't say anything, so I held my peace. We had to drive 'round by the road to git back to the canoe and long b'fore we got to it—about as soon as we sighted it, 's a matter of fact, I sensed that something untoward had took place; and so did Jim. And when we got closer we c'd tell jest what had happened about as well 's if we'd been there to see it all."

A Dear Lesson

"Fust of all, we c'd see the canoe had been moved—it was a matter of five foot away fr'm the fence now—and when we got there we saw a couple of holes right through the side; about such a hole as a steer's foot would make if he stepped on it. And the lamps! And the dishes! There was one lamp shade whole—but that was the whole tally. Every other dish and lamp was hurt—some of 'em shattered and some of 'em only cracked, but every nameable one of 'em sp'iled outright, fur's looks went!"

"By the tracks in the mud we c'd piece together what had took place—there was the tracks of them young cattle and behind 'em and over-lappin' 'em in spots, was the tracks of the three dogs that had got to chasin' 'em—jest in sport, you know, to see the steers run, a good deal as any young critters'll git to playin' sometimes, jest like kittens. But in this case their playin' had done some damage."

"Well, I started to say something about bein' over-careful, but a look at Jim's face made me hold my speech. He looked at me and then at the wreck on the ground and then back to me again."

"A canoe sp'iled," he says, "that's wuth thirty dollars; and lamps and dishes ruined that like 'nough my wife'll value higher'n the canoe! And all for what? To guard against a shower that never come—and to make safety sure by p'ilin' everything in the path of d'struction! If this ain't a lesson to me, Peaslee," he says, "I'll never have one, not to be over-cautious again. Hereafter," he says, "Jim Pallbush is goin' to be a man to take ord'nary chances, same's other folks take. It may be a wrench to my habits," he says, "but I'll save time by it, anyway—and mebbe money, in the long run."

"So you see now, Hyne?" Mr. Peaslee said.

And the deacon, no longer dubious, said, "I see."

A New Book

"VEGETABLE GROWING," by James E. Knott, is a new book on the production of garden and truck crops. Its aim is "to set forth the fundamentals of vegetable production, suggesting wherever possible the reasons for the methods followed and the plant responses obtained." The book is well bound, illustrated, contains 352 pages and should prove a valuable addition to the vegetable grower's library. It may be obtained for \$3.25 from the publishers, Lea & Febiger, Washington Square, Philadelphia, Pa.

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For Valuable FREE Books

Just your name and address on the coupon below will bring you two valuable books free. One book is "The Soil and Its Tillage," the other is the CLARK "CUTAWAY" Catalog of Disk Harrows and Farm Implements.

"The Soil and Its Tillage" is a small encyclopedia of farm information. Simply written, it tells in detail:

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The book, which is fully illustrated, shows how to get bigger, better crops, how to save time and labor—how to make your farm yield greater profits.

The CLARK "CUTAWAY" Catalog illustrates and describes the full line of CLARK "CUTAWAY" Disk Harrows—from the Baby Cultivator and one-horse, Single-Action harrow to the Double-Action harrows for Fordson and other tractors. It also tells about special machines such as Bush and Bog Plows, Smoothing Harrows and others.

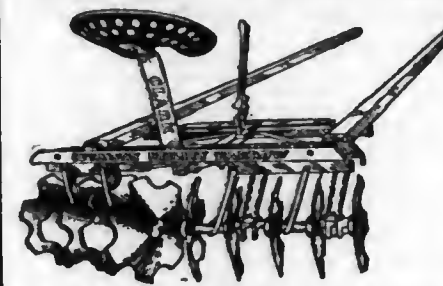
It tells why the Disks on all CLARK "Cutaway" Harrows are made of cutlery steel heat treated and forged sharp instead of rolled; it explains many features found only on CLARK "CUTAWAY" Implements that mean better tillage with less time and work.

Whether you have a small truck farm or one of hundreds of acres, whether you are ready to buy now or later, send for these two books.

There is something of interest in each for you. No obligation at all. Mail the coupon now.

"Since 1865"

Clark
"CUTAWAY"



CLARK "CUTAWAY" Utility Harrow
A general favorite one-horse harrow. Has 10 14-inch disks of cutlery steel heat treated and forged sharp. 5 inches apart and cutting 4 feet wide. Steel frame. Lever for shifting gangs. Disks equipped with clodbreakers.



CLARK "CUTAWAY" Single Action Harrow
For deep thorough tillage. Made with reversible gangs. Extension heads for orchard cultivation. Light draft, no tongue truck required.



Flexible Double Action Harrow
Those who prefer a flexible Double Action Harrow can now get it in a genuine Clark "Cutaway". The rear gangs do their full share of the work. Turns the shortest corners easily. Screw control. All steel construction. Tractor model only.

CLARK "CUTAWAY" Unit Frame Double Action Harrow
Cuts your land deep, thoroughly pulverizes the soil, leaves a level, even seed bed. Rear disks cut exactly halfway between front disks and at same depth. Several sizes, horse and tractor model. (Tractor model, all steel construction.)

Clark "Cutaway" tillage tools distributed by Downey Implement & Supply Co., Phila., Pa. and I. W. Scott Co., Pittsburgh, Pa.

Please send your FREE catalog and book, "The Soil and Its Tillage."

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FARM, GARDEN and FLOWER SEEDS
of the quality that we know will please you and at prices you will be glad to pay. We trade. Our 40th annual catalog describes hundreds of very choice varieties. Send for it before ordering. It will pay you.
FORD SEED CO., Box 38, Ravenna, Ohio

FRUIT TREES
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WINNETUXET DEBUTANTE, 165454; Owner, D. W. Gurnett, Kingston, Mass.

Quaker DAIRY RATIONS

the feeds that produce champions

WINNETUXET DEBUTANTE is one more outstanding example of the great value of Quaker Dairy Rations in maintaining record milk production. This Guernsey has just completed her second Advanced Register Test, with 17,479 pounds of milk and 848.6 pounds of butterfat to her credit. This established her as first in Class BB in amount of milk produced and fourth of the seventy leading cows in all the Double Letter Classes.

Her owner, Mr. Daniel W. Gurnett of "Clearing Farm," Kingston, Mass., writes: "The only grain ration she (Winnetuxet Debutante) received during her test was Quaker 24% Protein Dairy Ration, fed with beet pulp and alfalfa hay. She was never off-feed at any time during the test, and gained more than 75 pounds in weight. She has also given us a fine, healthy bull calf weighing 95 pounds.

"Our young stock and dry cows are fed Quaker Sugared Schumacher Feed, and the whole herd is kept in excellent condition for record milk production with your Quaker Feeds."

Dairy herdsmen everywhere share Mr. Gurnett's admiration for Quaker Dairy Rations. They have demonstrated to their satisfaction that Quaker means maximum milk production and maximum profits at a minimum investment. If you have not seen for yourself the value of feeding Quaker Dairy Rations, consult your Quaker dealer at once.

THE QUAKER OATS COMPANY, CHICAGO, U. S. A.

Quaker Sugared Schumacher—is the complete carbohydrate feed; combines perfectly with any Quaker high protein concentrate (24%, 20% or 16%). A choice feed for all young and dry stock; an entire grain ration for horses, steers, lambs and swine



The Education of the Cow

(Continued from page 8.)

ignorant and their production was correspondingly low, the average yield for Pennsylvania cows in 1880 being 2,004 pounds of milk. In 1925 with a better knowledge of diet, efficiency, eugenics, health, sanitation, etc., the average yield had increased to 4,500 pounds of milk per cow.

There has been still greater increase in the production of cows that are members of those efficient educational agencies known as cow-testing associations or dairy improvement associations. In 1910-11 there was but one cow-testing association in the state and the average production of the 516 cows in it was 5,724 pounds of milk and 234.5 pounds of butterfat. In 1928 there were 76 associations including over 28,000 cows and the average production was 7,776 pounds of milk and 303.7 pounds of butterfat, an increase of over 2,000 pounds of milk per cow and 69 pounds of butterfat.

Results Apparent

The College herd is kept primarily for the instruction of students in dairy cattle judging, feeding, management and for the conduct of dairy cattle feeding experiments. Naturally under these conditions the yield is considerably lower than would be the case if milk and butterfat production were the chief purposes. However, the results of the education of these cows are also quite noticeable. Averaging the yields of all cows of all breeds in the herd, including those on experiment, some of which were put dry a considerable portion of the year, the yields by five-year periods were as follows:

| Year | Av. No. Cows in Herd | Av. Yield Milk (lbs.) | Av. Yield Fat (lbs.) |
|----------|----------------------|-----------------------|----------------------|
| 1891-95 | 29.65 | 4720.4 | 225.70 |
| 1896-00 | 28.17 | 5004.8 | 243.45 |
| 1901-05 | 30.91 | 5284.9 | 266.96 |
| 1906-10 | 38.46 | 5372.3 | 264.56 |
| 1911-15 | 47.40 | 5773.9 | 278.33 |
| 1916-20 | 30.80 | 7175.1 | 340.61 |
| 1921-25 | 61.38 | 8293.1 | 331.91 |
| 1926-28 | 67.58 | 8502.9 | 347.05 |
| Increase | 37.93 | 3782.5 | 121.35 |

The table shows a consistent increase from year to year with a gain of 121 pounds butterfat for the last period compared with the first.

A Farmer's Figures

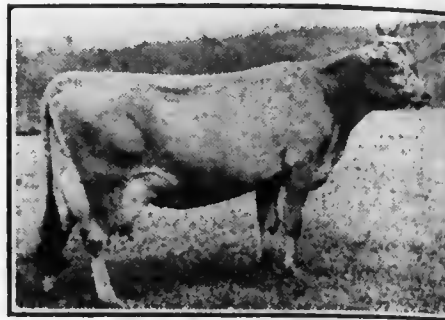
What an "honest to goodness" dairy farmer can do in educating his cows to produce milk and butterfat more efficiently may be seen from the following record of a herd in Bradford county which was in a cow-testing association for five years:

| Year | Lbs. Milk | Lbs. Fat | Returns Above Feed Cost |
|--------|-----------|----------|-------------------------|
| First | 7150 | 274 | \$45.90 |
| Second | 7067 | 273 | \$41.80 |
| Third | 8221 | 305 | \$61.57 |
| Fourth | 9109 | 346 | \$120.16 |
| Fifth | 11720 | 454.5 | \$193.49 |

This man started with ten head of grades. He gradually weeded out the low producers that were detected by the records of production kept by the cow-testing association. He kept a pure-bred sire and raised the heifer calves from his best cows. Furthermore he got a start in pure-breeds and gradually worked more and more into a pure-bred herd until at the end of the fourth year he sold his grades and kept a pure-bred herd of eight cows the fifth year. It is interesting to note that the milk yield increased 4,507 pounds per cow and that the returns above feed cost per cow jumped from \$46.50 to \$222.53.

Scores of other Pennsylvania dairymen could be mentioned who have educated their cows to give from 2,000 to 4,000 pounds more milk yearly and from 75 to 150 pounds more butterfat after two to five years' work in the cow-testing association.

We send our boys and girls to the public school, to high school and to college to make them more efficient



The national champion senior three-year-old Jersey for both milk and butterfat production is Ida Clifton's Ethel, shown above. She produced 1,030.79 lbs. of butterfat and 18,151 lbs. of milk in a year for her owner W. D. Howard of Massachusetts.

and to enable them to make a better living and to render greater service to their fellowmen. Similarly the education of the cow in matters of diet, economy of production, eugenics, health and sanitation, should enable her to be a more efficient milk producer, to make a better living for her owner and to render a greater service to humanity by producing dairy products of the highest possible quality.

C. T. A. Reports

Northern York County
THE Northern York County Cow-Testing Association finished its third year January 1, 1930, with 18 whole-year and two part-year members with ten bi-monthly members in the Association which are included in this report.

| Year | Av. No. Cows | Lbs. Milk | Lbs. Fat |
|------|--------------|-----------|----------|
| 1927 | 216.57 | 7493 | 310.3 |
| 1928 | 303.66 | 7453 | 317.3 |
| 1929 | 312.36 | 7696 | 318.2 |

Eleven herds with an average of five or more cows exceeded an average production of 300 lbs. of butterfat. A complete list of these herds is as follows:

| Owner | Breed | Lbs. Milk | Lbs. Fat |
|----------------------|---------------|-----------|----------|
| N. E. Rishel | R.H. | 12106 | 413.7 |
| Geo. B. Livingston | R.&G.H. | 11141 | 409.3 |
| J. A. Poorbaugh | R.&G.G. | 8218 | 373.5 |
| Wm. F. Dummer | G.H.&G.G. | 9714 | 390.6 |
| J. J. Hamme | R.G. | 7154 | 346.2 |
| J. Raymond Arnold | R.&G.G. | 7238 | 311.4 |
| Frank L. Krall | R.H. | 9576 | 334.9 |
| W. W. Little | R.G. | 7430 | 331.2 |
| C. Allen May | R.G. | 7035 | 327.6 |
| O. C. Livingston | R.&G.H. | 9198 | 319.9 |
| Haines Acres | R.H. | 8388 | 302.0 |
| Wm. F. Schaefer, Jr. | Geo. G. Weber | | |

Susquehanna County
THE Western Susquehanna County Cow-Testing Association, Route No. 2, finished its second year, February 1, 1930, with 17 whole-year and eight part-year members. There were 544 cows in the Association during all or part of the year. The result for the two years is as follows:

| Year | Av. No. Cows | Lbs. Milk | Lbs. Fat |
|------|--------------|-----------|----------|
| 1928 | 325.74 | 8549 | 303.5 |
| 1929 | 348.69 | 9932 | 351.5 |

Fifteen herds with an average of five or more cows exceeded an average production of three hundred pounds of butterfat. A complete list of these herds follows:

| Owner | Breed | Lbs. Milk | Lbs. Fat |
|-----------------------|---------------|-----------|----------|
| Geo. E. Page | R.&G.H. | 12746 | 438.2 |
| O. H. Green | R.&G.H. | 12951 | 422.5 |
| F. R. Cope, Jr. | R.&G.H. | 12101 | 418.7 |
| Wells C. Phelps | R.&G.H. | 11703 | 389.3 |
| Ray Walworth | R.&G.H. | 11014 | 372.7 |
| R. D. Rice | R.&G.H. | 9576 | 355.4 |
| Harold McKeeby | R.&G.H. | 8853 | 311.4 |
| Joseph Sutton | R.&G.H. | 9805 | 339.4 |
| James Ball | R.H. | 9985 | 327.7 |
| Theron Cooley | R.&G.H. | 9766 | 327.2 |
| G. C. Shafer | R.&G.H. | 8901 | 325.8 |
| Ray Smith | G.G.; R.&G.H. | 7775 | 321.5 |
| (Eleven-month record) | | | |
| Fred Gunn | R.&G.H. | 8929 | 320.2 |
| Albert Scherhorn | R.&G.H. | 8867 | 319.7 |
| Walter Hoppe | R.&G.H. | 9235 | 313.9 |
| Archie Bush | N. C. Dale | | |
| Tester. | County Agent. | | |

The Story of Woodbine Farm

By W. D. ZINN
CHAPTER IX

VAGUE indeed were the notions about farming during my father's lifetime. I well remember the first farmers' institute ever held in our county. The late D. D. Johnson, who at that time held some state position but who was a farmer, came to Philippi to hold a farmers' institute. My father was elected president of the meeting. I remember that Mr. Johnson said that somehow or other when clover was grown on the land grain crops were improved. It was not known at that time why clover improved the soil.

Crude as the teaching was, that and subsequent meetings of the kind did much to better the agricultural conditions of the county. About this time the Morrill Land Grant Act was passed by Congress and the money appropriated by this act was given for the establishment of agricultural colleges in the United States. But a number of years passed before the money appropriated to teach agriculture in our own state of West Virginia was used for that purpose.

Board of Agriculture

The State Board of Agriculture was created by an Act of the Legislature passed March 13, 1891. It was composed of one commissioner from each Congressional District. Their terms began on the first day of April, 1891. The first meeting was held in Charleston on the first Monday in May. The members were B. F. Fisher of the first Congressional District; C. R. Shaw of the second Congressional District; John W. Rowan of the third, and T. C. Atkeson of the fourth Congressional District.

Soon after the appointment of the Board of Agriculture it started a publication called the West Virginia Farm Bulletin. It made its appearance April 1, 1892, and was continued under this title until July, 1893, when the name was changed to the West Virginia Farm Reporter. In 1898 the title was again changed to the Farm Review. In October, 1905, the publication of this paper was discontinued.

T. C. Atkeson, of Putnam county, and the late James George, of Mingo county, being members of the Board, were sent out by the Board to organize farmers' meetings or "institutes," as they were afterward called. In many places farmers ridiculed the idea of teaching agriculture, but like faithful missionaries these men continued to talk better farming. In a number of counties considerable interest was aroused. Later as I went over the state I heard farmers speak of Mr. George as "the man who knew all about corn."

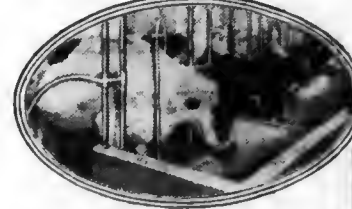
Early Institutes

When A. B. White became Governor, in 1901, he appointed the following named persons as members of the State Board of Agriculture: A. B. McCullough of Ohio county, E. J. Humphrey of Wood county, Walter Hollie of Doddridge county, Dr. D. J. Border of Jefferson county, Rossi M. Fisher of Morgan county, Col. J. A. Ewart of Raleigh county, and W. D. Zinn of Barbour county. Mr. Fisher's nomination was not confirmed by the Senate, and M. V. Brown of Putnam county was appointed in his stead.

On account of the lack of funds the former boards had done little toward organizing farmers' institutes in the various counties. At the first meeting of the Board held in Charleston, on the first Monday in June, 1901, A. B. McCullough was elected president and J. O. Thompson, secretary. It was decided to put on an aggressive campaign to hold institutes in every agricultural county of the state. When the Board began to look for institute speakers it found very few in the

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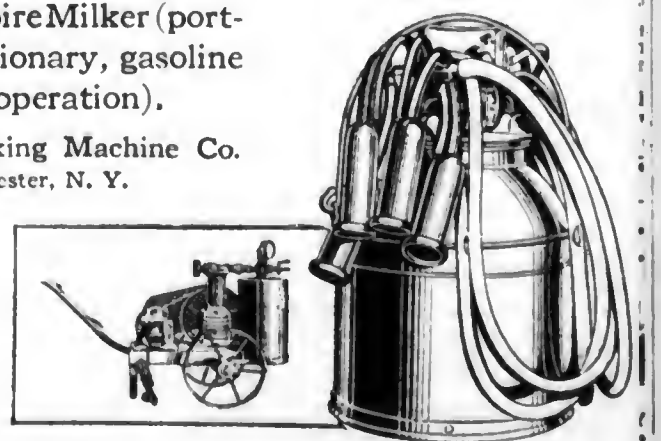
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What Age Nursery Trees?

By S. W. FLETCHER

H. G. BAUGHER of Adams
county, Pa., and Professor
F. N. Fagan of State Col-
lege staged a friendly argument at
the recent meeting of the State Hor-
ticultural Association on the ques-
tion, "Have we been stressing too
much the superior value of one-year-
old apple trees?"

Mr. Baugher, speaking for the nur-
serymen, made the following points:
A one-year-old tree is so small that
it is more likely to be run down in
cultivation the first season than the
older and larger tree. Some varieties
grow faster in the nursery than others;
under Pennsylvania conditions it is
difficult to secure a growth of five
feet the first year, even for strong
growing varieties like Stayman.

If the small one-year whip is left
in the nursery it will make a five to
seven-foot tree the second season,
with a heavy trunk. Using the modern
power digger, most of the roots of
the two-year-old tree are saved; this
was not true when nursery trees were
dug by hand.

Two-year trees can be certified as
true to name with much more assur-
ance than one-year trees. Root gall
seldom shows on one-year trees even
if present, but is fully in evidence on
two-year trees; this advantage alone
is worth the extra cost of the older
trees.

The Other Side

Professor Fagan, on the other hand,
contended that the superior value of
large one-year trees has not been
over-emphasized; that they have been
made necessary by changing condi-
tions in the fruit industry.

Twenty-five years ago no nursery-
man dug an entire block of one-year
trees; many do so now, because fruit
growers demand them and nursery-
men should strive to please their clients.
Twenty-five years ago orchard-
ists were satisfied to buy large, high-
headed, two-year trees, having a
bunch of branches at the top; now
they are not. The heavy loss from
breakage in the orchard, due to poorly
placed limbs, has made the fruit
grower desire to train the young trees
himself, not leave it to the nursery-
men.

The nursery industry has been very
slow to respond to this new demand.
The fruit grower now requires of the
nurseryman a tree on which he can
form the head himself; usually this
can be done to best advantage on a
one-year tree.

Index to Vitality

Another important point, says Pro-
fessor Fagan, relates to size as an
index of vitality. It has been shown
by experiments that small, weak nur-
sery trees usually become small, un-
profitable trees in the orchard; the
runt nursery tree stays a runt. The
fruit grower will want to know, there-
fore, whether this five-foot two-year
tree that the nurseryman offers him
was a cull at the end of the first sea-
son. If so, he does not want it at any
price. Any tree, however, that is
large enough to plant at the end of
one season assuredly has the vigor
that is essential to future success in
the orchard. It is more difficult to de-
termine this point in a two-year tree.

Much depends, also, on the way the
two-year tree has been handled after
digging and previous to planting. If
it was dug in the fall and stored over
winter in the cellar, with the branches
tied in close, which is the common
practice, the bent branches are likely
to be so injured that they must be
cut back to two to four buds. This
was the standard recommendation
twenty-five years ago. The same con-
dition exists if the trees are dug in
the spring and lie in bundles any
length of time.

This close heading back of the site
branches of two-year-old trees, neces-

sitated by bending, results in a poor
head, since the scaffold limbs branch
too close to the trunk. There is no
such injury with one-year trees, and
the scaffold limbs can be properly
spaced.

Summing up his argument, Pro-
fessor Fagan favors a large one-year
tree primarily because the fruit grow-
er can train it himself, whereas, most
two-year-old trees received from the
nurseries are headed too high and the
branches are bunched. Other things
being equal, he favors the use of
Pennsylvania-grown trees, because
they can be secured in a fresh condi-
tion, and growers can see them at
the nursery; but Pennsylvania nur-
serymen must give the fruit growers
what they want.

If a one-year tree of sufficient size
cannot be produced under our cli-
matic conditions, then the nursery-
man should follow one of two courses;
either head it low at the end of the
first season, not over two feet, so that
the following year it will develop a
leader on which the fruit grower can
debud to form the frame work; or
head it high (or not at all) and debud
these trees in the nursery row.

Either method will win back the
trade that now is passing more and
more to southern nurseries, which can
easily produce the large one-year tree
that growers prefer.

The jury (the readers of Pennsylv-
ania Farmer) will now pass on the
merits of the question, and of the ar-
gument. The kernel of the problem, to
venture a personal opinion, is not age,
nor even branching, but vigor. Since
a five to six-foot one-year tree is
bound to have great inherent vitality,
it is to be preferred to a two-year
tree, in which this is more uncertain.

Cherries Rot

Can you tell me why cherries rot
every year about the time they start
getting ripe? Is there anything to pre-
vent it? M.

PROBABLY this is the brown rot,
a fungous disease which also at-
tacks peaches and plums. This at-
tacks the blossoms and kills the twigs,
making a small canker at their base.
The brownish dust covering the
outside of diseased fruits is made up
of spores which blow to other fruits,
thus spreading the infection.

The diseased fruits shrivel. These
"mummies," whether on the tree or
on the ground, together with the can-
kers, carry the disease over the win-
ter and are the sources of infection
the next season. The mummies
should be destroyed, either by burn-
ing or burying. Early spring plowing
is beneficial in this respect, by bury-
ing the mummies. Satisfactory con-
trol cannot be secured, however, ex-
cept by spraying or dusting.

Spray with self-boiled lime sulphur
at intervals of ten to fourteen days,
from blossoming time until within
two or three weeks of ripening. Sul-
phur dusts also are effective. See
your county agent about the county
spray service. S. W. F.

Rabbit Damage

I have several small apple trees (one
to two inches in diameter) which have
been peeled by rabbits—some little, but
others two-thirds or more around.
Others are peeled clear around the
trunks. How shall I treat the trees, or
would it be best to reset with new
trees? A. R. Heintzman.

PAINT the wounds immediately
with liquid grafting wax. If you
cannot get this melted paraffin will
do. As far as is practicable bank up
soil around the injured portions. If
this is done before the wood dries out
you may save all these young trees,
even those that are completely girdled;
but it might be better to pull out
the most seriously girdled trees and
set new ones. S. W. F.

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Truck Crops

By GILBERT S. WATTS

A READER who has had a
great deal of trouble with
clubroot of cabbage owns a
field that has been in sod for five
years and where cabbage never has
been grown. He wonders if he will
have clubroot again if he plants his
cabbage in that field.

He plans to lime the field and that
is right because clubroot flourishes in
an acid soil. The lime should be ap-
plied after plowing and be harrowed
in thoroughly. Cattle have been pas-
tured on this piece of land. If they
have been fed cabbage with diseased
roots attached clubroot is almost cer-
tain to have been spread in the
manure. If that has not been done
and the field does not receive surface
water from higher land it can be ex-
pected to be clean.

Then care must be exercised not
to drag soil from the severely in-
fested fields to the clean fields on
harrow or cultivators. And most im-
portant of all, the plants must be
grown in soil that is known to be
free from this pest. Not having club-
root is mostly a matter of exercising
these precautions and of not growing
cabbage in the same ground more
often than once in four to six years.

For Irrigation

I have a stream of water through
the farm and it never goes dry. It is
about a foot deep. I would like to put
in a sprinkling system with pipe right
from this stream. It has a good fall,
around five feet from the stream to
the level of the land. Would you tell
me if a hydraulic ram would take care
of it? F. H. T.

In reply to your inquiry about op-
erating a sprinkler irrigation sys-
tem directly from your stream of
water, a fall of at least 25 or 30 feet
would be required for fully satisfac-
tory results.

In regard to using a hydraulic ram
this plan may offer possibilities if
you expect to irrigate only a very
small area at a time, but I am in-
clined to believe a pump working di-
rectly into the distributing lines
would prove more satisfactory.

The Bean Beetle

The Mexican beetles have been so
bad here it is almost impossible to
grow any beans. Will you please ad-
vise me what to do for them?
E. E. Perry.

It is altogether possible and prac-
ticable to control the Mexican bean
beetle by either spraying or dusting.
Rather than give the brief instruc-
tions which may be included in a
letter I wish, since many weeks will
pass before planting time, to suggest
that you write the Division of Agri-
cultural Extension, State College, Pa.,
for a copy of Circular 122, entitled
"Vegetable Garden Insects."

Then in addition to having complete
information on the bean beetle you
will have a ready source of informa-
tion on all the common garden in-
sects.

An Acre of Tomatoes

I am contemplating growing an acre
of tomatoes. Will you kindly tell me
where I may procure information on
preparation of the soil, fertilization,
spraying and marketing?
C. A. R.

If you want to know all about
tomato growing send \$1.25 to
Orange Judd Publishing Co., 15 East
Twenty-sixth street, New York City,
and ask them to send you the book,
"Tomato Production," by Paul Wark.
This is a very complete yet concise
little book that no tomato specialist
should be without.

Farmers' Bulletin No. 1338, "To-
matos as a Truck Crop" may be
secured free from the Office of In-
formation, U. S. Department of Agri-
culture, Washington, D. C. Al-
though this bulletin was published in
1923 you will find it full of sound
information. Bonny Best, Greater
Baltimore and Marglobe are hard
varieties to beat.

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IN every community there
are a few farmers who
have better than good crops, and in every case
these will be farmers who bought better than
good seed... because no crop can be better
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silage. Wonderful producers, grown for seed and
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"Red Cap White Ensilage."

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State Certified Russets. Also Lancaster County
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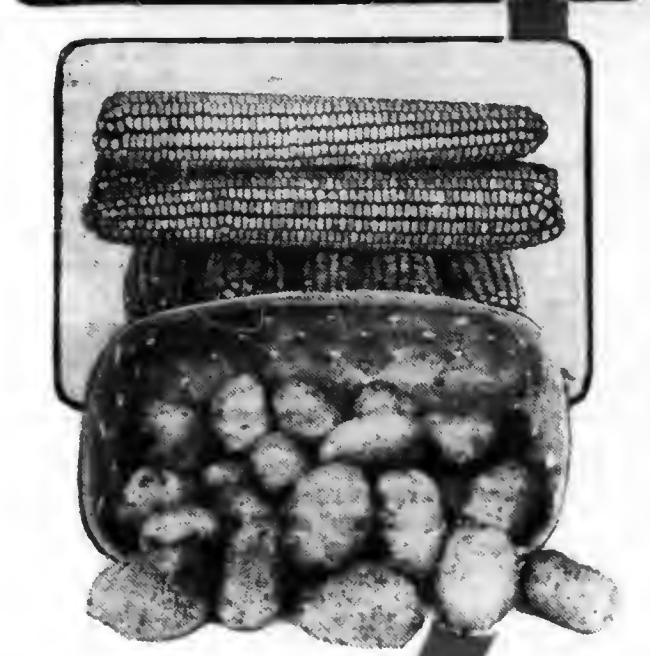
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SMILES, jokes and the general informality associated with Saint Patrick's Day parties make them the most entertaining events of the season. And decked with the bright and pleasing decorations made especially for this festive day, the party is bound to be a success.

There are a variety of amusing games, too, so altogether it is one of the simplest of parties to plan.

Invitation

A jolly invitation written on a green cardboard shamrock may read:

"Come on the avenin' of Saint Patrick's Day Where all must be jolly and eager to play Come smilin' and beamin'—AND Be prepared to take jokes!"
.....8 p. m.

Decorations

To give the room where the games are to be played a festive air, a center decoration may be made of three large green shamrocks. This may be placed around a light. From the center, extended to the corners of the room, miniature festoons of Nile green and emerald green are draped like garlands. Smaller cardboard shamrocks on strings are placed at irregular intervals on the garlands. See last paragraph for suggested booklets.

Games

Kissing the Blarney Stone

Blindfold each player in turn, and let him walk to a table, which should be five or six good steps away, pick up the first "stone" that he touches, and kiss it. As soon as this is done, the blindfold is removed, and he is allowed to read the "blarney" that is written on the bottom of the "stone." If possible, use real stones, or make them of cotton batting or crushed-up tissue paper covered with gray paper, stretched over the foundation, and pasted neatly. The "blarney" may be on round or oval pieces of writing paper pasted to the "stones."

A Shamrock Hunt

Hide a number of green paper shamrocks in different parts of the room. Have the players form a line and march around in a large circle while, some one plays a lively Irish tune on the piano or phonograph. The music stops suddenly and the contestants are allowed two minutes in which to hunt for shamrocks. The marching and hunting are continued alternately until the shamrocks become scarce. Only one shamrock may be picked in each hunt. Any one failing to find one during any hunting period must leave the circle. The one who remains in the ring for the longest

time is given a prize. This may be a bouquet of Nile green crepe paper carnations. Send ten cents to Party Editor, care of Pennsylvania Farmer, for further instructions about making flowers.

Green Contest

Each person is furnished the following list of questions written on a shamrock cardboard cut-out. All answers must contain the word "green." As the questions are comparatively easy to answer, a time limit should be specified.

A valuable paper Greenback
A merchant Greengrocer
An inexperienced person Greenhorn
A country Greenland
A lawn Greensward
A glass house Greenhouse
A plum Greengage
An apple Greening

The dining room, of course, is one of the chief attractions of the party, and here are some suggestions for making charming table decorations that will help your party to go with a swing.

Paper lace doilies are used on the table with large green cardboard shamrocks. To make the centerpiece, use a small hat box for foundation. Take two folds of crepe paper, one Nile green and the other emerald green, and cut in strips of long pointed petals. Paste a strip of the emerald green petals to the box. This is done by covering the box with paste and then gathering the plain end of the strip around the box by holding the

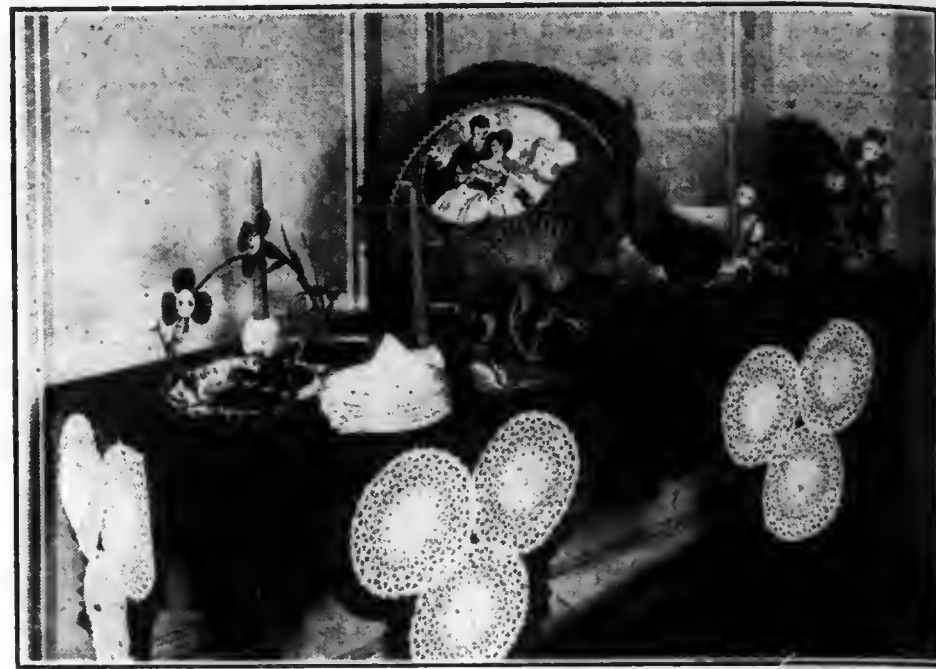


gathers in place with the thumb and forefingers.

Use shamrock cardboard cut-outs in assorted sizes and attach with gum tape to a heavy wire which has been wound with a narrow strip of emerald green crepe paper. The wires are 18 inches long. Then gather the Nile green petals together like a huge pom-pom, adding shamrocks at regular intervals. Then gather a few rows of emerald green paper petals to form the outside rows of the rosette. Tie together with spool wire like a huge flower, cutting off excess paper below the spool wire. Place in the center of the box. Favors may be placed among the petals or in the bottom of the box.

Place Cards and Nut Cups.—Gather a strip of green paper around an ice cup foundation, pasting along the lower edge of the cup. A place card of a little Irish lad or lassie may be pasted to the front of the cup.

Favors.—St. Patrick's Day dolls may be made by taking a small piece of cotton batting round ball shape for a head and covered with a piece of white crepe paper which has been stretched. Two pieces of heavy wire are wound with crepe paper to form the legs and a shorter piece of heavy wire is wound with emerald green wire for arms. Spool wire is used to join the doll together. They are dress-



Simple decorations of paper are attractive and inexpensive.

ed in emerald green crepe paper and trimmed with gummed shamrock hearts.

Refreshments

The refreshments may be "Irish Toast" sandwiches made in two tiers, like club sandwiches, using three thin slices of toast for each one. Have one layer filled with chicken salad and the other potato salad. Tiny Irish lags from almost any stationery store may be stuck into each one.

The salad may consist of cream pimento cheese, olives and green peppers. The olives are chopped and mixed with the cream cheese, and then stuffed into whole green peppers, and allowed to stand in the ice box for a time to stiffen. The peppers are then sliced across and the shamrock slices arranged on lettuce and sprigs of water cress, and covered with French dressing.

Send for Booklets

"How to Make Crepe Paper Flowers" including directions for making carnations will be sent to you upon receipt of ten cents.

"How to Make Table Decorations and Favors" including instructions for making crepe paper and wire dolls, and the "Gala Book" with additional party suggestions will also be sent for

ten cents each. Enclose money or stamps and address Party Editor, Pennsylvania Farmer, 7301 Penn Ave., Pittsburgh, Pa.

HAVE YOU READ ABOUT THEM?

What? Our new contests, of course. Now is the time to get in on the fun readers of the Young People's Page are having. There are always prizes for the best drawings and stories. Below you will find the subjects for both boys and girls.

For the Boys

1. "Why I am Going to Leave the Farm," or
"Why I am Staying with My Dad."

Let's hear both sides of the question from the boys.

For the Girls

2. "What Manners Mean to Me." Not more than five hundred words on the above. Write on one side of paper, using pen and ink.

For Our Artists

3. Cartoons on the subject: "When the Pet Lamb Grew Up."

Use white, unruled paper and black or India ink. Remember, the contests close March 15th. Address your letter to Young People's Editor, Pennsylvania Farmer, 7301 Penn Ave., Pittsburgh, Pa.

Little Folks' Corner

The Story of Joe Poke

BETTY'S daddy had been cutting hay on the marsh and when Betty ran to meet him he said, "What do you suppose I found today?" Betty noticing he held one pocket very carefully, said, "Was it a little bunny?" Daddy said, "No it is an egg, a goose egg, I think. Put it under a hen and perhaps it will hatch."

Betty was delighted and ran to tell mother all about it. They put it under a hen that was sitting in an old barrel in the shed. Betty went each day to look at that egg, she was so anxious to see if it was going to hatch; she hardly expected it would, but it did, and such a fluffy yellow gosling! Betty kissed it on its little beak, and with a squeal of delight ran to the house to show her little pet. She called it "Joe Poke" because it had a habit of poking its little head all about and turning it sideways to look at her.

Joe Poke grew very fast. Betty put him into a box each night and during the day he was allowed to run about the yard. One day Betty's big brothers were playing in the yard and one

of them stepped on Joe Poke's foot, tearing a hole through the web that held his toes together. Betty was so frightened she ran and picked him up, bathed his foot and put some salve on it and it soon healed, but there was always a hole in it.

After Joe Poke grew up he would sometimes sneak into Daddy's corn field and begin stripping blades, then Betty would go out and call him by name and he would call back to her by saying "honk, honk," and come up to see if she had something to eat. Betty would sit on the grass sometimes and say, "Come here, Joe Poke, and get on my lap," and he would climb upon her lap and sit down, and poke his beak all about her dress like he was trying to fix a nest.

One day when her pet was about a year old Betty went into the chicken yard and was surprised to see Joe Poke sitting on a nest. She said, "What are you doing in there?" and putting her hand under her pet she found an egg. She ran laughing to her mother and said, "Oh! Mother just look. I thought Joe Poke was a daddy goose and she has laid an egg!" Aunt Belle.

PASSING EVENTS IN PICTURES



(Copyright by Underwood & Underwood)

1. London.—Stepping out!—in the feminine British manner—Miss Dewar, noted hurdler, caught in a fine action shot during her training at Battersea Park for the international games at Prague.

2. Chicago.—The "electromatic" traffic control was conceived in New Haven, Conn., when a young Yale professor, Harry A. Haugh, Jr., hurrying home late one night, was stopped at a pretimed traffic light, which was giving the right-of-way to an empty street.

Chafing at the unnecessary delay he began to ruminate on the possibilities of regulating traffic by mechanical means to its own volume and flow—in other words allowing it to run itself. In collaboration with three Yale asso-

ciates, Eugene D. Stirlen, David Geer and Wallace G. Garland, the new mechanical brain with its mechanical eyes was developed.

Photo shows Mr. W. R. Abbott, Jr., demonstrating the electromatic.

3. Long Beach, Calif.—Photo shows James R. Carter, Cleveland archaeologist, with Mrs. Carter, aboard the famous "Peary" yacht, which carried Commander Byrd and his plane into the Arctic for his flight over the North Pole, and which is being groomed for another adventure—to the east coast of Yucatan for a three-month investigation of the ancient Mayan ruins by Dr. Carter, Dr. George P. Engelhardt, biologists of the Brooklyn Museum of Arts and Sciences, and M. F. Bramley of Cleveland, who

is financing the expedition.

4. Long Beach, Cal.—A view of the largest oil derrick in the world, which has just been completed at the famous Signal Hill fields here. Reared to a height of 175 feet, this mammoth structure, almost three times the size and height of the ordinary ones, is expected to facilitate the lowering of a 10,000 foot shaft, since operations above ground are simplified by the greater working space.

5. Los Angeles.—A lineup of merry-makers ready for a thrilling toboggan race during the annual winter sport carnival at the Los Angeles County Park, near here, less than an hour's journey by auto from the orange groves of Southern California.



The Power Farmer's Spring Tooth Harrow—Built for Tractor Power

The John Deere-Syracuse Heavy Duty Tractor Harrow applies tractor power to big-capacity preparation of seed beds. It has the strength you need in equipment of this type, plus the good work advantage for which all John Deere-Syracuse spring-tooth harrows are famous.

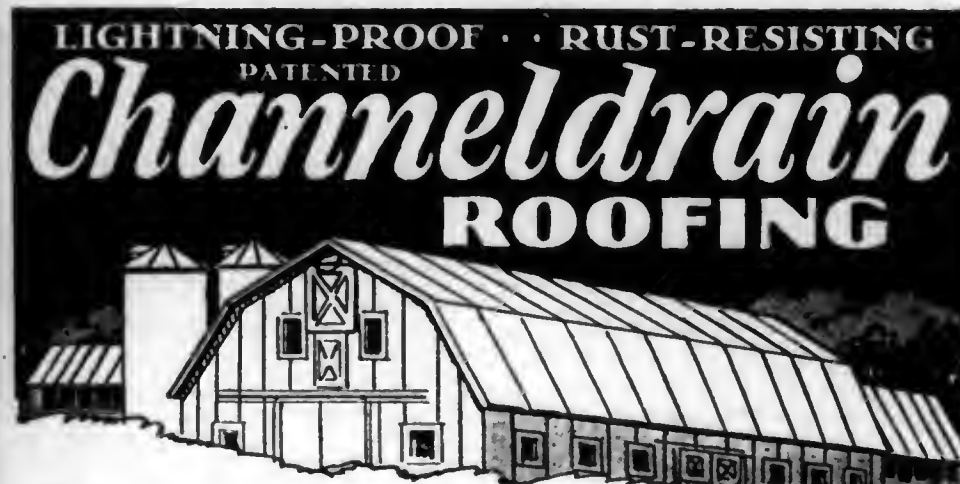
Heavy-dimension, channel-steel frames; tooth bars shaped by special machines to insure great strength; thick, yet very resilient high-carbon steel spring-teeth, and heavy, straight grained oak drawbars with high carbon steel draft rods are outstanding features that make the John Deere-Syracuse Heavy Duty Harrow a dependable, profitable implement in power farming.

Frames are carried high over the teeth by the two rear shoes and front pivotal shoe. This construction insures prompt penetration under all conditions and freedom from clogging in trashy fields. The John Deere-Syracuse is built for good work and lots of it. The spring teeth dig deep, break up the lumps, mix the soil, kill the weeds and leave the field in fine condition for profitable planting.

Make it a point to see the John Deere-Syracuse heavy-duty harrow at your John Deere dealer's store next time you are in town. Have your John Deere dealer point out the many features that make it just right for tractor power. Write John Deere, Moline, Ill., for free booklet TH-836

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What Our Readers Say

TAXATION is the greatest problem confronting the farmers of Pennsylvania. It is the first place to look for relief.

Pennsylvania is a great industrial state, one of, if not, the wealthiest state in the Union, with only seven per cent of its population engaged in agriculture. If every industry would bear its just share of the burden of government according to benefits received agriculture would be greatly relieved.

While agriculture was the major industry of the state, it might have been justifiable to place the greater part of the burdens of government on land and real estate. Especially was this true when only real estate owners were entitled to vote, but we have long since outlived that state and real estate, especially farm-land, should long ago have been relieved from carrying an unjust share.

Here is something for economists to work on and find some plan of taxation that will more equally distribute the burdens of government. For a number of years our greatest farm organization, the Pennsylvania State Grange, through its Legislative Committee, used every effort to get some relief for agriculture and real estate, with little results. This organization will undoubtedly continue its fight and should have the cooperation, not only of every farmer in the state, but of every good citizen who believes in equal rights and justice.

Two Kinds of Land

The most burdensome taxes are local taxes, raised for the maintenance of schools and roads. As long as a six to ten mill tax was sufficient for their maintenance there was no complaint, but when it requires a fifty mill tax on an already depressed industry they became unduly burdensome. Here I shall confine my observations to conditions as they exist in Schuylkill county. There may be similar conditions in many other counties.

We have two kinds of land, farm land and coal land; the former can, under present conditions, be bought in many cases for less than the buildings are worth and no sale for it; the latter is very valuable and profitable; although not assessed nearly as high in proportion to its real value as farm land is, it pays a considerable tax. It so happened that the section where this rich land existed was divided into separate townships. Here they have but few miles of roads and plenty of money to maintain the very best of schools without burdening the people of the townships, as the coal companies pay most of the taxes.

The purely agricultural townships with low assessed valuations in comparison to the coal townships have about 75 per cent of the road mileage of the county to maintain for the use of the county as a whole. Every village is incorporated in a borough, thus placing the burden of maintaining the greater number of miles of roads entirely on the farmers, who constitute only about five per cent of the population of the county.

Just Distribution

This is a very important matter to be considered in any program of tax readjustment. As the roads are now largely used by the county as a whole, roads not taken over by the state should be maintained by the county. This would give considerable relief to our agricultural townships.

Next come the schools. The children of the farmers are entitled to all of the educational advantages that any other children enjoy. Here we meet with a like problem. The purely agricultural townships cannot compete with the richer coal townships or the manufacturing centers, where there is greater wealth.

The state makes liberal appropriations toward the maintenance of these schools, yet as long as the farmers are

paying a greater share of their total income toward their maintenance than is required in the industrial sections the state should give further aid so as to equalize the burdens, as the state as a whole rather than the townships gets the benefit.

With these readjustments and the assessment for taxes made on the income of corporations and individuals instead of on real estate, agriculture would enjoy the greatest relief and the burdens of government would be fairly and justly distributed.

John Shoener.

Schuylkill county, Pa.

Wants Justice

ALL the relief we farmers need is justice, spelled with a capital letter. What relief and aid do we get in paying four cents tax on the gasoline used in our tractors, gas engines and light plants?

Telephone and light companies can appropriate our lands for their use, but we cannot compel them to give us service except at prohibitive rates. I have the misfortune to be on a committee to confer with a certain company in regard to service. Their rates are beyond what we are able to pay. Yet they go through our lands. But, of course, they are trunk lines built only to connect one large town with another, not to serve us poor fellows who hear so much about needing relief.

The corporations can pollute our streams, but we farmers cannot place a pig lot across a small stream, or down from Harrisburg comes a man paid by somebody and tells us to remove same without delay. The above statement is an actual fact.

The township auditors are not trusted to appraise a few sheep killed by dogs. Down from Harrisburg or some other seaport, to investigate at some one's expense, they come. More relief.

Our auto fees are the same as the man who has his automobile on the road 365 days, and for weeks at a time the road is so bad we cannot get ours to a hard road, which is very good when we get to it, but is always good for the big fellow who travels from town to town.

If our lawmakers at Harrisburg and Washington, D. C., would give us an equal draw with the corporations we would not need a farm board paid a large salary.

D. F. Jones.

Phosphate on Corn

The first half of February we husked an eight-acre field of standing corn. This field had been unusually soft during the fall on account of excessive rains and the corn had evident opportunity to have fallen over. The corn had to endure an ice storm that put down 500 telephone poles in our county. Husking corn in February has always been taboo on our farm, to say nothing of leaving a field standing on the stalks most of the winter. We had been busy rebuilding a barn.

With this field of corn now in the crib we are sure we harvested more corn than we expected. We husked more corn than we expected, had it been cribbed in October. We purposely avoid kinds of corn with a heavy, coarse stalk. In the fall an experienced corn raiser took occasion to criticize our corn because the stalks seemed to him remarkably slender. Across the road from this field the standing corn fell over badly.

The day we planted this field of corn a customs trucker was sent to haul out twenty per cent phosphate and a team from off the farm was hired to drill 350 pounds of this fertilizer per acre ahead of the planter. Quite a number of fields of corn stood on the stalks until mid-winter around here, but we saw no corn that stayed up off the ground as well. We are convinced that the standing quality of

the stalks and the bright keeping quality of the corn were mostly due to the strengthening and maturing element in the superphosphate.

H. D.

About Hauling Manure

A COLD day recently while hauling manure we were reviewing the advantages over summer hauling. The advantages are pretty well summed up by the summer's work; they are a lot of kicking at flies as they wait for the load to go on. In winter the mules or horses are fresh and the manure hauling toughens them and gets them fit for the hard days of spring plowing.

The manure hauled out in winter is right to work for the farmer. The straw and stalks that he raised last summer are under the ground, producing crop growth again—you get a turnover of your humus every season instead of a leaching in the yard or a firing if the manure is uncovered.

On a bracing cool day in winter the man at the fork handle can do a lot of work—haul more loads in a day. With the manure crop largely out during the winter the farmer has more chance for a little vacationing in August between the rush of summer work and the corn-cutting season with fall seeding.

Thomas Jones.

Wants Rotten Manure

IN reply to Mr. Lighty concerning manure in the barnyard, there are two sides to this question. To improve land you need plenty of good rotten barnyard manure. Since farmers in our valley commenced to haul out their manure as fast as they made it their farms are on the decline. They do not raise the heavy wheat and red clover crops they did when they left their manure in the barnyard until it became a fertilizer.

You must have hay, straw and fodder to make nature's fertilizer. Nature has provided a process for all this raw material to go through to become a fertilizer, and that cannot be done in a few days or months. It must have time to become a fertilizer. By drawing the manure from the stable to the barnyard daily and letting cattle trample it solid, when weather permits them to be out, and with rain and snow to keep the manure pile moist, you get good manure. Keep good eave troughs on your barn. Then you need not fear your manure pile leaching away.

Take the leaves in the woods; do they receive a fertilizer to make that timber grow? The leaves go through the process the same as straw, hay and fodder is calculated to go through to become a fertilizer. There is nothing to leach away. It is all of dry nature.

H. S. Baker.

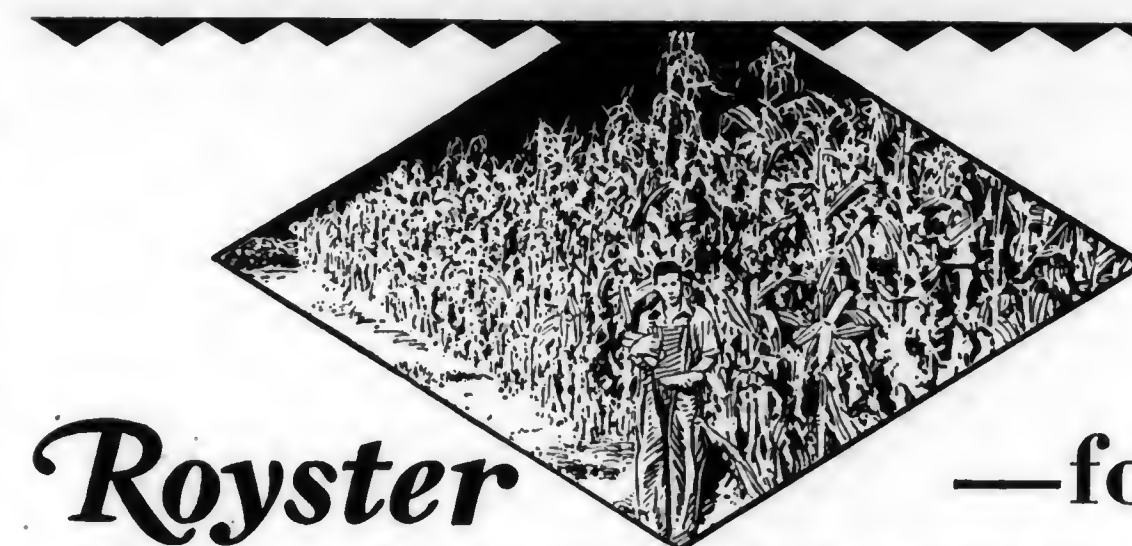
Blair county, Pa.

In Reply to H. D.

AN article in your paper by H. D. last week seemed to put hard times up to farmers on account of their lazy habits in contrast to their neighbors. I can remember back some twenty years when they were getting lumber out of this section. They did work hard, but they did not milk cows all winter.

We start to milk at 6 o'clock and keep lively to get the milk ready for the truck man at 8 o'clock. We take about 15 minutes for breakfast, after which time till 11 o'clock we are busy with the milk. Between then and 4 o'clock, if we have nothing special to do, we take it easy, after which we repeat the morning and forenoon performance. All of which goes to show that we put in over eight hours' work every day of the week, Sunday included.

What is true of us is true of every dairy farmer, only some of them work every day except Sunday. All this in the time H. D. supposes us to be doing nothing. Tell H. D. to visit some dairy farmer and see if he doesn't change his opinion. J. M.



Royster —for corn

"Harvested about 10 days ahead of my neighbors—yield about 110 bushels per acre, with good stover."

Royster FOR POTATOES

This year on twenty-five acres I had a certified yield of 400 to 500 bushels of seed potatoes. H. C. Andrews, Waterloo, N. Y.



Royster FOR ONIONS

2200 bushels of fine onions—part of a 15-acre yield. "A fertilizer that gives the highest yield possible." Ross & Di Santo, Savannah, N. Y.



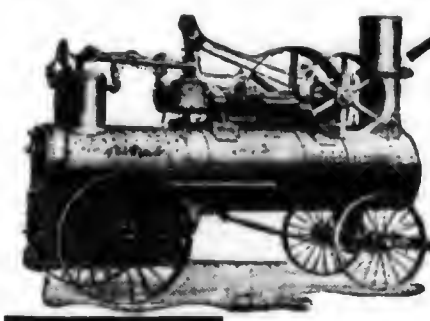
Royster FOR WHEAT

This year my Royster fertilized wheat will average at least 40 bushels to the acre. W. S. Sheehan, Kennett Square, Pa.

Royster

FIELD TESTED FERTILIZERS

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Engine has been detached and mounted on concrete base or mounted on Flat Steel Saddle which are riveted to and make a permanent part of the boiler—various types of boilers carry this engine.

We also build Boilers and Vertical Boilers designed for the individual Dairy, Milk Plant, Creamery, etc.

The Farquhar-Hercules power unit runs on gas, oil or kerosene, is mounted on stone truck and is admirably suited for driving Sawmills or other machinery.

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Seed Barley—Velvet, handles like Oats. No other from beard. Best of barley varieties. Also have Oatmeal and Barleed.

Naturally Dried Seed Corn Carefully Selected

Complete stock Clovers, Alfalfa and all small Grass Seed

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(More Resistant to Mosaic)

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Control SMUTS for Bigger Oats Yield

No Seed Injury with Easy Ceresan Dust Treatment



HEALTHY Ceresan increases yields by preventing smut losses.

Now is the time to choose between a good stand and big acre yields of oats this season, or poor germination and a short, smutty crop.

The annual smut damage inflicted on oats is very severe. Destruction of a fifth of the crop is not unusual. Sometimes the loss is even more. In 1929, state and federal authorities say, oats suffered more than normal smut damage in Wisconsin, Minnesota, Iowa, Missouri and Kansas. The preceding year, Iowa's loss alone was 18,000,000 bushels.

Control Smuts before Planting

Now, by seed treatment with Du Bay Ceresan, you can control both loose and covered smuts before you plant. Farmers and farm authorities know this from actual experience. For example, Wisconsin Circular 133 states that Ceresan has given very good control of oats smuts. The *Plant Disease Reporter* for August, 1929, reported that dust treatment with Ceresan gave "good control" of oats smut in Iowa, and in Kansas, Ceresan dust treatment gave "excellent control" of oats smuts.

Harmless to Seed

Easy Ceresan dust treatment puts an end to the risk of seed injury that is always present in the wet formaldehyde treatment, which sometimes injures as much as 30% of the seed. Ceresan destroys smut organisms on seed oats, but is harmless to germination.

Ceresan Increases Oats Yields

By preventing crop damage from oats smuts, Ceresan increases yields per acre. The Illinois Agricultural Experiment

Station said in a bulletin that Ceresan gave perfect smut control, increasing the yield on smutty 60-Day Oats by 13.8 bushels per acre and on smutty Big 4 Oats, by 19.1 bushels per acre over the yields from untreated seed. These increases were about double the increases obtained by formaldehyde treatment.

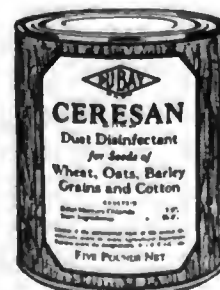
Also Controls Barley Diseases

Dust treatment of seed barley with Ceresan gives excellent control of stripe and covered smut and usually prevents seedling blight. An Illinois Experiment Station bulletin says: "For the treatment of these diseases, Ceresan seems to stand alone at the present time. . . . This treatment controlled all three diseases remarkably well." In another practical test, Ceresan gave perfect control of both covered smut and stripe disease and produced a yield increase of over 5 bushels per acre.

Ceresan dust seed treatment is also effective in controlling many seed-borne diseases of spring wheat; rye; sorghums, such as kaffir corn and milo maize; millet and cotton.

Quick and Easy Seed Treatment

Dust seed treatment with Ceresan is quick, easy and inexpensive. Only 3 ounces required per bushel of seed oats, barley or cotton; 2 ounces per bushel of seed wheat, rye, sorghums or millet. No muss or bother. Just dust it on according to simple directions. Bigger yields of better grain pay big returns on this small investment. Seed treated as long as a month before sowing may be stored safely. Ask your dealer at once for our free Ceresan pamphlet, or write to Bayer-Semesan Company, Inc., 105 Hudson St., New York, N. Y.



CERESAN

REG. U. S. PAT. OFF.

Dust Disinfectant for Seed Grains and Cotton

SEMESAN JR. for Seed Corn SEMESAN for Flowers and Vegetables SEMESAN BEL for Seed Potatoes

AT YOUR SERVICE is the attitude of every advertiser in this paper. Write them about your needs. Mention Pennsylvania Farmer.

To Eliminate Waste

By R. U. BLASINGAME

As a general rule most all farmers in Pennsylvania begin plowing, disking, seeding, planting, cultivating, spraying, dusting and harvesting about the same time of the year. Now there are about 200,000 farms in this state; yet only about twenty-five or thirty machinery firms must furnish the repairs and take care of the sale of the new machines which are required.

If everybody waits for repair parts for plows, harrows, corn planters, sprayers, etc., until the day these machines are ready to be put to work somebody is going to be without. The local machinery dealer cannot afford to carry a full stock of repairs for every machine he sells. But he will be glad to order them ahead of time.

And the national farm machinery firms—those supplying equipment to all of the 6,000,000 farms in the United States—are up against it every season to supply repair parts all over the country. Remember this, therefore, if a part for a corn planter, for instance, is ordered at the rush period maybe several thousand other people are ordering at the same time. The only thing the factory can do is to possibly hire extra people to try to keep up with the repair business. These extra people are not as proficient in shipping repairs as the people who normally take care of this job. Consequently many delays occur and it goes largely back to the man who owns the machine and who does not order the part ahead of time.

One of the Major Wastes

Of course parts break in operation, which is unfortunate, but cannot be avoided. If machines are looked over in advance of their use there will not be so much loss of time and delay with farm operations.

I dare say that delays occasioned by machines being out of repair constitutes one of the major wastes in agriculture.

I was talking to the vice-president of a prominent sprayer manufacturer a week or so ago, and he said that the repair business was one of the most difficult jobs his company had to face. He had the following suggestions to make relating to the repair of and putting spray machines to work:

"This is the time of year to get sprayers in shape for the long grind next summer. Many growers keep putting off this task until spring comes, when suddenly they find themselves in need of their sprayers and they need work done on them. As a rule the outfit should be given a complete overhauling. It works under a tremendous strain and has very corrosive materials to contend with.

Go Over the Machine

"Take the first nice day and carefully go over the machine. Then make up an order for the repairs that you need and either take it to your dealer or send it to the factory where the sprayer was made. We might suggest that a pencil and paper be kept in the tool box throughout the spraying season. Let the operator make notes on this paper of what repairing needs to be done and what parts need to be ordered before the next season. In case he leaves your employ, you will have a record to go by. Even if you run the machine yourself you will find it handy to make a record of this kind.

"The engine should be carefully gone over. Remove the carbon, grind the valves and check their timing, take up any bearings which are loose, and see if new piston rings are needed. Most gas engine troubles are ignition troubles. Check the timing of the spark, use a good spark plug and keep it free from carbon. Look for a short circuit in the wires where they may be rubbing on the engine. If the magneto is in need of attention

DEPENDABLE NURSERY STOCK

FRUIT TREES
GRAPE VINES
BERRY PLANTS
Flowering SHRUBS
and ROSE BUSHES

APPLE TREES
Baldwin, Cortland, Delicious, Greening, McIntosh, Red, Northern Spy, Westling, 2 yrs., 4 to 6 in., 25¢ each. \$20.00 per 100.

PEACH TREES
Elberta, Hale, Rochester, South Haven, etc., 2 to 3 1/2 in., 25¢ each. \$10.00 per 100.

CONCORD GRAPE VINES
1 year, 10¢ each. \$5.00 per 100.
2 years, 15¢ each. \$4.00 per 100.

BUTTERFLY BUSH
Strong plants, 36 each.
Berries large, firm, easily and very productive. Ripens early, berries bluish, not sticky and palatable. Originated in Canada. Our plants come direct from originator's farm, Prof. Rees, Canadian Horticulturist.

Many other items at special prices. A dollar saved is a dollar made. All stock offered strictly first-class, and guaranteed absolutely true to name. Send for FREE Catalogue.

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NURSERYMEN and FRUIT GROWERS
WILSON, N.Y.
NIAGARA CO.

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Fine soil and fertilizer will not bring the best crops—without the best seeds. Rohrer's SURE-PAY Seeds grow finer crops because they are carefully selected and have all the qualities necessary for finer crops. Let us send you our FREE samples—and see for yourself.

Remember: No charge for bags and we pay the freight.

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The Vegetables and Flowers you would like to see growing in your garden—read all about them in Burpee's Annual. It describes Burpee Quality Seeds, Bulbs and Plants, a million people use it as their garden guide. Write for your ANNUAL today. It's free.

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HIGH GRADE FERTILIZERS
READING MEAT MEAL
DOW'S AGRICULTURAL SPRAYS
(This trade mark means quality)

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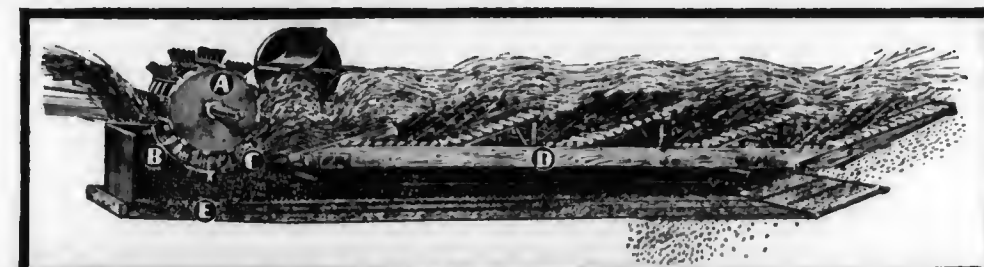
Reading Bone Fertilizer Co., Reading, Pa.

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You Can Make EXTRA PROFITS

with a thresher like this



A. All-steel cylinder
B. Adjustable concaves
C. Non-clogging finger
grates
D. Counterbalanced
straw rack
E. Smooth grain pan



better send it to a service station now; then it will be ready to go next spring. If your engine uses batteries and you get new ones do not leave them in a damp place. See that the coil functions properly.

"The bearings on the pump should be taken up if there is any looseness in them; perhaps a few new bushings will be needed. The plunger packing may leak and need replacing. The gaskets and valve seats may be in a bad condition and need to be replaced. These may be needed at any time during the spraying season, and it is well to keep extras on hand all the time.

Ready for Spring

"The pressure regulator may need attention. Don't fail to keep it well covered with oil or greased on the outside so as to prevent corrosion which might make future adjustments impossible. If you use fine hoses in the nozzle disks, it may pay to replace all the piping on the outfit, for there is bound to be rust which will come loose inside of old pipes and make trouble by clogging the nozzles. Now is the time to repack or replace that leaky agitator stuffing box.

"The sooner you order needed repairs the better. Then you will have them and be ready to go ahead and overhaul your machine at some time when the weather is favorable and when it will be convenient to do it in connection with your other work. It is surprising how many growers wait until the day they want to spray and then discover that their machine is not ready to run.

"And don't forget to get any hose, nozzles, nozzle disks and other equipment which may be needed. During the spring manufacturers are so badly crowded with orders that they cannot always ship as quickly as you would like. Sometimes these late, hurry-up orders are lost or damaged in the mail. Let's order now and be ready to go when spring opens up." Opportunity waits on preparation!

A Water System

As our storage supply is only 17 gallons we now intend to build a concrete storage cistern entirely under the ground with 18 inches of ground on top of cistern, in order to keep water cool in hot weather and prevent freezing in winter.

The location of this cistern will be 20 feet from well and elevated 21 feet at bottom of cistern or 32 feet at top of cistern, where discharge would empty into cistern eight feet deep and eight feet in diameter.

Walls are to be ten inches thick composed of one part cement, three parts sand and three parts fine gravel. Or would you make some alterations in proportioning this mix?

We intend using 1 1/2-inch pipe for discharge and 1 1/4-inch from cistern to barn to watering trough and drinking cups for dairy.

Will a one and one-half horsepower gasoline engine be satisfactory for pumping this water? Please let me know how much pressure we would have at house and barn? W. E. Hawthorne.

I do not think that the walls of your concrete tank should be thicker than six inches. You can make water-tight concrete by using about six to six and one-half gallons of water to each bag of cement. Then put into this mixture of cement and water as much stone and sand as it will hold and still make a workable concrete. If the sand and stone are wet use less water.

With regard to pressure that you will have in your pipe at any point below the tank it can be secured by multiplying the height in feet by .434. This means pressure per square inch. Suppose that you were ten feet below the tank, your pressure would be 10x.434 or 4.34 pounds per square inch.

I think that a one and one-half horsepower engine will be ample in size for your needs. However, it would be a good idea for you to write to the manufacturer of your pump and give him the size of the cylinder and the height to which you will lift water. I think the pipe from the pump to the tank should be the size for which the pump is tapped.

THE difference between making a good profit in threshing or just breaking even is often a matter of preparedness. You can make extra profits with a Case Thresher because with it you are prepared to thresh efficiently all kinds of grain, even when conditions are difficult.

An adjustable height of feeding that enables you to thresh wet or tangled grain more easily is an advantage that no other thresher can give you. The Case has many other valuable features that assure you of better threshing and more thorough separation and cleaning.

1. The all-steel cylinder is accurately balanced. The perforated concaves are also of steel construction and unbreakable. The adjustable height of feeding, together with the adjustable concaves and correct spacing of teeth, permit clean threshing of the toughest grain without slugging and with very little power.

2. Non-clogging steel finger grates make complete separation certain. . . over 90% of the grain is removed from the

straw even before it reaches the straw rack.

3. Counterbalanced straw rack and grain pan do their work thoroughly and smoothly.

If you grow threshable grain or seed, you will find it very much worth while to learn more about the profit-possibilities of a Case Thresher. Mail coupon for free copy of "Bigger Profits by Better Threshing," a fully illustrated book every grain grower will enjoy reading.

J. I. CASE CO., Inc., Racine, Wis.

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Please send me without obligation a copy of "Bigger Profits by Better Threshing."

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State Experiments prove Ohio Clover produces most hay and stands winters best. Write to-day. NOW, for prices on clover, soy beans, timothy, grains and grasses. All domestic and pure. Thirty-five years, same old stand selling direct to farmers who demand the best in seeds.

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Box 5, Fostoria, Ohio

LITTLE WONDER DITCHER

There is a machine for your celery or asparagus trench, irrigation ditch or riding. A mile of ditch a day is usual. It is inexpensive to buy. Users are enthusiastic. Mr. W. B. Farmer, Hampton Falls, New Hampshire, says: "Used two car loads of the same we purchased the Little Wonder Ditcher, and the cost of ditching was just under \$10 cents per foot."

Write for literature and details of our value plan.
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Box 101, Bellevue, Ohio.

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WE PAY THE FREIGHT
LEADCLAD
KEYSTONE COPPER BEARING
WIRE FENCE AND BARB WIRE
AND GALVANIZED ROOFING

CONSUMERS MFG. & SUPPLY CO.,
Dept. F, Mountville, W. Va.

WHEN you go into town on Saturday for the week's buying, how do you go about it? The chances are that your mind is pretty well made-up—not only as to general description of the products you want, but as to the brand names. You'll mention familiar merchandise easily, naturally. Names of advertised goods.

You prefer advertised goods because you know you can depend on them. You save hours of shopping time in a year because you don't need to investigate or examine the things you want. You don't buy on suspicion—you buy with confidence—because you know goods that are consistently advertised must maintain consistent quality. It is ruinous for a manufacturer to turn the spotlight of advertising on an inferior product. And advertisers know it. Hence advertising is a guarantee of dependability.

Farmer's Business Letter

A STRIKING feature of the hog market this week was the quick response of producers when prices slumped. They promptly cut off receipts. The run here this week was only 160,000, against 209,000 last week. Eleven markets had 575,000, against 671,000 last week.

Smaller receipts the latter half of the week put prices back where they had been at the opening of the week, which was the high point of the season. In spite of the midweek slump the average price for the week at \$10.50 was five cents above last week. It was 35 cents higher than a year ago when the market was on the upgrade, and \$2.75 above the weekly average two years ago.

From what is known of supply and demand conditions, the position of hogs is so strong that there is danger of the trade going to extremes in bullish sentiment. It is to be noted that marketing at the eleven leading points so far this year is smallest, with three exceptions, 1926, '27 and '22, since 1914. For the first half of this month the eleven markets received 1,373,000 hogs, that number comparing with 1,530,000 a year ago and 1,841,000 two years ago. The number of mixed hogs, usually in evidence toward the end of the winter season, is larger at this time than it was two weeks ago. Farmers are picking up hogs where they can, and sows are selling in pure-bred sales better than in a long time.

Lambs Higher
The lamb market made a gain this week, for a change. It was welcome relief from the downward swing, though of course prices did not advance enough to let shippers out. Lambs advanced as much as \$1, though on most kinds the net gain was under 50 cents. Average price for the week was figured at \$11, a gain of 35 cents over last week, but still \$5.20 under a year ago.

The market was helped by quite a shrinkage in receipts. The run here totaled 70,000 against 82,000 last week, and the combined totals at leading points were about in the same proportion. This helped, as did also lower prices for lamb reflected to consumers, and perhaps in addition the protests against low prices brought before Chicago packers by the personal representatives of western feeders.

Most of the decrease in receipts this week was due to Colorado feeders holding back, to give the market a chance to pick up. They sent only 21,000 lambs to Chicago against 28,500 last week. It is generally felt, however, that there are still plenty of lambs to come, and no one, so far as your correspondent can ascertain, expects any material improvement in prices in the near future.

Cattle Mostly Lower
The cattle market was weak this week, and prices except for a few steady spots were some lower. The bulk of steers was 25 to 50 cents lower, and butcher stock as much as \$1 lower. The market thus showed its inability to absorb much of an increase in receipts.

The run here this week at 42,000 was about 6,000 larger than last week, though a little smaller than the same week a year ago and two years ago. In spite of the weakness that has prevailed in the market for some time,

the fact should not be overlooked that cattle prices are high.

The steer average, as figured this week, is 50 cents above a year ago, and the bulk of steer sales, at \$11 to \$14, compares with \$11 to \$13 a year ago, and outside of 1928, when bulk was \$11.65 to \$14.35, highest since the war years. A little more optimism was evident in the trade this week, based on the promises of improvement in general business conditions.

Demoralized Wheat Trade

The downward swing in wheat prices was checked at the week end, still there is no certainty about the future. Demoralization was evident in the wheat markets of the entire world.

The Farm Board's Stabilization Corporation, said to hold about 10,000,000 bushels of wheat, was thought to have a loss on it of around 10 cents a bushel, or \$1,000,000.

Wheat for March delivery at Chicago showed a loss of 54 cents from the high point last summer. Europe seems set against buying any more wheat than necessary on this continent, due to the artificial price influences brought to bear. On Jan. 1 it is figured there was approximately 580,000,000 bushels of wheat in all positions in the United States, of which bread and seed requirements would probably take care of only 295,000,000 bushels during the last half of the crop year. On July 1, 1929, the carry-over into the new crop aggregated 245,000,000 bushels and relatively little change is expected to be shown at the end of the present season.

LIVESTOCK

PITTSBURGH

Cattle

Monday's supply was light, only about 30 carloads, but it included some very well fed steers. Buyers bid lower prices on the good fat steers but in the end paid about the same figures as last week, in some cases getting better cattle than then for the same money. One load of well finished 1,312-pound steers brought \$12.50 and a few loads of good fat steers \$13.00 to \$13.25, both handy and weighty kinds going at this range. Very nice handy-weight butchers steers brought \$12.50 to \$12.75, not many good enough to beat \$12.25. Light and medium quality steers looked lower, few light kind going at \$11.25 to \$11.50 and ordinary light killers \$10.50 to \$10.75. A few steers and thin cows were picked up to go to the country, the cows costing \$6.75 to \$7.25. Heifers were not numerous and easier, few selling above \$11. Fat cows showed little change, but not many brought over \$8.50, an occasional one \$9 or a little more. Canners went at \$4.75 to \$5.25, largely at \$5. Bulls were lower, with \$9.50 the outside figure for butcher bulls, most of these \$9 to \$9.25 and bolognas generally \$8 to \$8.50.

Prime fat steers \$13.00 to \$13.50
Choice steers, 1,300 lbs. or over \$12.50 to \$13.00
Good to choice, do. \$12.00 to \$12.50
Fair to good, do. \$11.50 to \$12.00
Plain heavy steers \$11.50 to \$12.00
Choice handy-weight steers \$12.25 to \$12.50
Good butcher steers, 1,000 to 1,150 lbs. \$11.90 to \$12.25
Fair to good, do. \$11.50 to \$11.85
Ordinary to fair, do. \$11.00 to \$11.50
Common, do. \$10.50 to \$11.00
Good light butcher steers \$11.25 to \$11.75
Fair to good light steers \$11.00 to \$11.25
Common to medium, do. \$10.50 to \$11.25
Inferior light steers \$9.00 to \$10.00

Pork Production Record

A Minnesota farmer with 11 sows produced in 180 days an average of 2,222 pounds of pork per sow. This is the highest official record that has ever been made in Minnesota. The 11 Chester White sows farrowed 151 pigs, of which 120 were raised to an average of 203.6 pounds in 180 days. The total of 24,653 pounds of pork was produced at a total feed cost of \$1,061.25, or 4.3 cents a pound. This did not include labor or pasture. They sold for \$9.10 a hundred.

Will Not Hold Butter

Members of the Land of Lakes Creameries, Inc., who hold their annual convention March 12-13, will be informed that the funds secured from the Federal Farm Board will not be used primarily to hold butter off the market so as to bring stability.

"We cannot by ourselves hope to shoulder the burden of possible loss," declared A. J. McGuire of the management. "Unless more cooperative creameries agree to join in this movement it will be difficult for a single group, no matter how strong, to undertake a line of work which should be supported alike by all."

"It is evident that the dairy industry is facing a butter surplus which will control the entire market price situation to a large extent. If all the cooperative creameries here in the Middle West—Minnesota, Iowa and Wisconsin—were working together they could control the surplus they produce, and which would have a stabilizing influence on the market. We hope that all the cooperative creameries will see the necessity of working together," he stated.

Chicago, Feb. 22, 1930. Watson

FEEDERS

Stocks Nominal
Choice fat heifers 11 00 to 11 50
Good to choice 10 25 to 10 75
Fair to good 9 50 to 10 25
Common to fair 8 00 to 9 00
Choice fat cows 9 00 to 9 25
Good to choice 8 25 to 9 00
Fair to good 7 00 to 8 00
Common to fair 5 75 to 7 00
Canners 4 75 to 5 25
Fresh cows, calf at side 50 00 to 60 00
Choice heavy bulls 9 00 to 9 25
Choice handy butchers 9 25 to 9 50
Good handy bulls 8 50 to 9 00
Fair to good 8 00 to 8 50
Common to fair 6 50 to 7 50
Inferior bulls 6 00 to 6 50

Monday's Representative Sales

Steers
No. Wt. Pr. No. Wt. Pr. No. Wt. Pr.
20 1312 13.50 22 1150 13.25 20 1302 13.15
21 1231 13.00 15 1080 13.00 15 1062 12.75
22 1284 12.60 12 1133 12.50 17 988 11.40
8 912 11.00 4 750 10.75 6 855 10.65
5 750 10.65 8 840 10.40 6 748 10.40

Hogs

At the close of last week sorted handy-weight hogs sold up to \$12.15. Monday's supply was 30 double-deck carloads. Trade was rather slow but all were sold at a decline of 20 to 25 cents per cwt. Heavy weights brought \$11.40 to \$11.50, but extreme weights would not go above \$11.25. Heavy mixed sold largely at \$11.60 to \$11.75, handy-weights at \$11.85 to \$11.90 and light at \$11.25 to \$11.50. Anything good of 150 lbs. or over going along with the handy weights. Sows were all wanted at \$9.75 for good ones.

Heavy \$11.40 to \$11.50
Heavy mixed \$11.60 to \$11.75
Medium wts., 180-200 lbs. \$11.80 to \$11.90
Heavy Yorkers, 165-180 lbs. \$11.80 to \$11.90
Light Yorkers, 125-150 lbs. \$11.25 to \$11.50
Pigs, 90-110 lbs. \$11.00 to \$11.25

Roughs

9 25 to 9 75
Stage 6 00 to 6 25

Sheep and Lambs

Last week's market was bad and this week's opened worse. Monday's supply was around 16 double-deck carloads, mostly lambs. Bids were lower on all kinds of lambs. A couple of decks went to local buyers at \$11.50, but the market for good heavy-weights was generally on a \$11.25 basis, culls and heavies out, and the rest was rather severe at that. One double of handy-weights brought \$11 straight, another including heavies \$10.65 straight, and \$11.25 was bid for some choice lambs that contained a few overweighters. Medium class sold at \$10 to \$10.25 and culls at \$9.50 to \$10.50, the latter for those not much in excess of 90 lbs. and the inside figure for choice heavier kind. A few clipped lambs appeared and sold on the basis of \$10 for good handy-weights. Sheep were dull but few were offered. They would have to be choice to beat 57 per cent, as the cheapest of heavy lambs is against the sheep market. Clipped sheep would probably sell on a \$6 basis but not enough appeared to make a market. No spring lambs have come in yet.

Good to best wethers \$6 75 to 7 25
Good mixed 6 50 to 6 75
Fair to good, do. 5 75 to 6 25
Common to fair 4 50 to 5 50
Inferior sheep 4 50 to 5 00
Good to best lambs 11 00 to 11 25
Medium lambs 10 00 to 10 50
Culls and common 8 00 to 9 50
Heavy lambs 9 50 to 10 50

Calves
Monday's supply was about 650 head. The market was unchanged at \$15.50 for tops, \$11 to \$13 for seconds and \$8 to \$10 for culls.

CHICAGO

Cattle

Chicago, Feb. 24.—Today's receipts amounted to 14,000 head. Better cattle; others weak to a quarter lower.

Common to fair steers \$9 50 to 11 25
Fair to prime yearlings 11 25 to 11 50
Fair to prime cow-feds 11 00 to 11 50
Cows 6 00 to 7 50
Heifers 7 00 to 8 00
Bulls 4 25 to 5 75
Canners and cutters 4 25 to 5 75
Calves 9 00 to 10 50
Stockers and feeder heifers 8 00 to 9 50
Feeder steers 8 00 to 9 50
Stockers and feeder cows 6 50 to 7 50

Hogs

Sixty-two thousand head, including 13,000 "directs," made up the supply. Market 10 to 30c lower with top at \$11.50. Bulk sold at \$10.25 to \$11.25.

Top pigs \$10 15 to 10 50
Underweights, 140-160 lbs. 10 00 to 10 40
Light, 160-180 lbs. 11 00 to 11 40
Light butcher, 180-220 lbs. 11 00 to 11 40
Medium butcher, 220-260 lbs. 10 50 to 11 40
Heavy butcher, 260 lbs. up 10 50 to 11 40
Stags, 70 lbs. deck 8 00 to 9 00

Sheep

About 19,000 sheep and lambs were on sale. Market 25 to 50c lower. Best lambs sold at \$11.70, bulk at \$10.50 to \$11.25.

Native lambs \$7 50 to 11 25
Western lambs 9 25 to 10 25
Feeding lambs 9 50 to 10 25
Wethers 4 75 to 5 25
Yearlings 6 50 to 8 25
Ewes 2 50 to 6 00
Shorn stock 50c to 75c below figures.

LANCASTER

Cattle

Lancaster, Feb. 24.—About 500 head of cattle were on sale. The market was slow and generally steady. Best steers held at \$12.25, while bulk went at \$11.25 to \$12. She-stock weak; bulls steady.

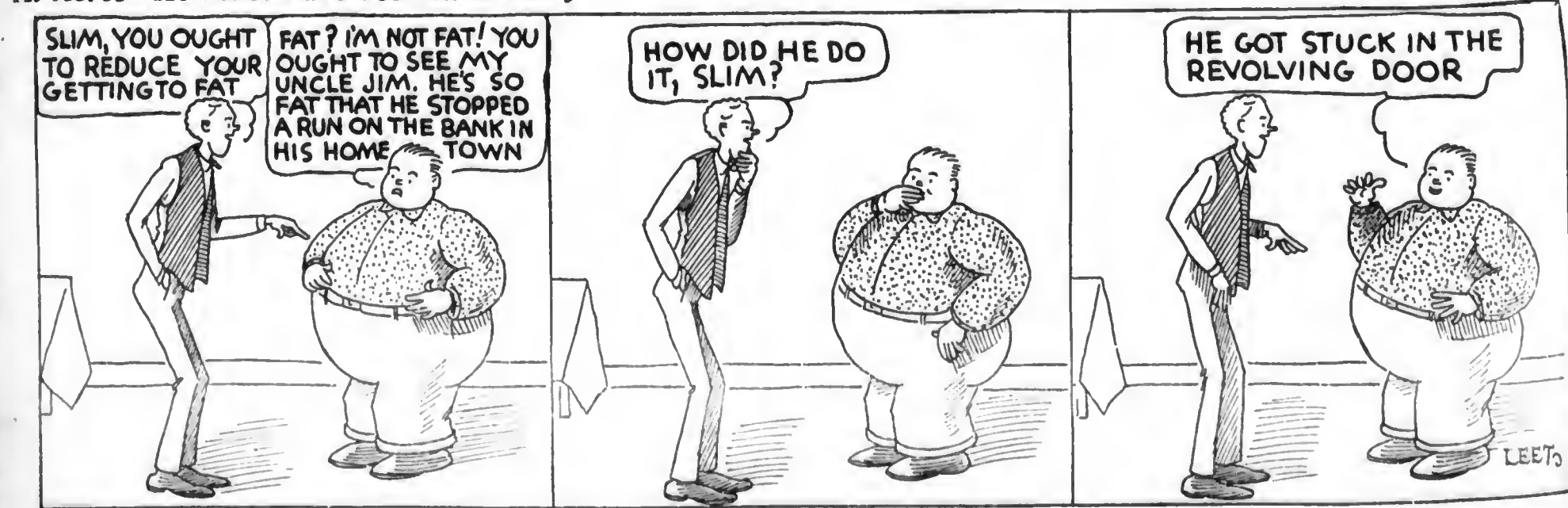
With 175 calves on sale the market was steady to weak. Top vealers sold at \$16.

Hogs

Nine hundred head were offered. Market steady with top hogs at \$12.75.

By Lett

Al Acres—He must have been in a hurry



Philadelphia Produce Review

THE Philadelphia egg market opened easier during the past week and on Tuesday sharp declines were registered on all grades. The price adjustment was generally looked for, since the market has shown a nervous undulation for some time. As the week progressed a steadier tone was noted but not enough to indicate any material strength. Supplies have been heavier than for any time during the current month and in most quarters moderate stock was carried over from day to day.

The New York egg market also declined but showed steadier tendency toward the close. Nearby mixed colors were quoted at 30 to 35c per dozen, whites at 35 to 41c and browns at 38 to 40c.

Poultry

Live fowl declined on the New York market during the latter part of the week due to heavy receipts and to the unseasonably warm weather. Consumption appeared to have fallen off considerably and trading was light. Chickens met a fair demand and fancy Rock broilers were wanted. Capons and hen turkeys were scarce. Colored fowl brought 28c per pound and Leghorn fowl 25c. Chickens brought 23 to 25c, pullets 25 to 35c and capons 26 to 42c. Nearby dressed hot house broilers were firm with light offerings. Fowls were in liberal supply but many dealers placed stock in storage rather than accept lower prices.

Potatoes

Potatoes were in rather liberal supply in most city markets this past week as the result of shipments averaging around 800 cars daily. The holiday on Saturday along with the regular week end is likely to result in further accumulations at terminal markets, especially when coupled with Thursday's shipments of over 1,000 cars.

The demand is slow with buyers pursuing a very conservative program. Shipping point markets showed a weaker tendency late in the week with Maine reporting sales of Green Mountains at \$2.10 to \$2.20 per 100-pound sack f. o. b. Maine has exceeded her last year's output by about 50 per cent and it seems likely that the total will be over 50,000 cars.

Prices averaged somewhat lower in Philadelphia this past week with Pennsylvania round whites ranging from \$2.50 to \$3 per 100-pound sack with less stock bringing \$3 than a week ago. Several cars of well-graded stock of good quality from Lebanon county have topped the market at \$3.50 per 120-pound sack. The average receipts have brought \$2.75 to \$3.35 per 120-pound sack. Sweet potato shipments have been averaging around 50 cars daily with Delaware and Tennessee supplying more than one half of the total. The market in most cities was rather quiet, except for extra fancy stock. New Jersey yellows sold at 90 to \$1.10 per bushel in Philadelphia while New York City reported \$1.25 to 2 per bushel with a few fancy lots reaching \$2.50. New Jersey stock also sold at \$2.50 in Chicago.

Apples About Steady

The apple market generally was quiet and held steady. There was a gradual advance during the first two weeks of February but there did not appear to be much tendency toward higher prices this past week. In general the demand is slow with active competition with liberal supplies of oranges on most city retail markets. There is a scarcity of strictly fancy fruit. Yorkers are meeting a somewhat better demand and there were some good Pennsylvania Yorkers that sold at \$6 per barrel in Philadelphia this past week. Yorkers in a way are selling at rather high prices, especially when compared with such varieties as Stayman and Winesap. New Jersey and Pennsylvania Yorkers sold at \$1.25 to \$2.25 in Philadelphia while Stayman brought \$1.50 to \$2.50.

There was some domestic cabbage sold in western New York at \$75 per ton this past week, setting a new high level. It appears that there are very few carloads of cabbage left in the North and remaining stocks are held at still higher prices. According to a report issued by the Federal Market News Division, the position of the old cabbage market has been helped by the poor grade of a large part of the southern cabbage which often reached

northern markets in rather poor condition and was light in weight. For this reason much trade was diverted to the more solid New York State stock. A few more carloads of Holland cabbage have been received at New York, Philadelphia and Baltimore.

W. R. W.

Philadelphia Produce Quotations

PHILADELPHIA

Butter.—Higher than extras, 39 to 42c; 90 score, 35 to 40c.
Eggs.—Extra firsts, 47c; firsts, 45c; seconds, 43 to 44c.
Poultry.—Live, fowls, 22 to 28c; chickens, 22 to 32c; old roosters, 21 to 24c; pigeons, pr. 38 to 40c; ducks, 20 to 28c; turkeys, 25 to 36c.
Fruits.—APPLES, bu. baskets, Yorks, \$1.25 to \$1.85; Romeys, \$1.50 to \$2.25; Stayman, \$1.50 to \$2.50; CHANBERLAIN, N. J. & Pa., 1/2 box, \$2.50 to \$3.25.
Vegetables.—BEANS, Fla. bu. bskt., wax, \$1.4 to \$1.50; BEETS, Pa., 1/2 bskt., 25 to 50c. CABBAGE, Pa. & N. J. Savoy, 1/2 bbl. hamper, 90c to \$1.60; LEEKS, Pa. bunch, 2 to 4c. ONIONS, N. Y. yellow, 100-lb. sack, \$1.50 to \$2.25; TOMATOES, Mex. lg., 3 to 4c. CARRIAGES, N. J. & Pa., 1/2 bskt., 25 to 65c. CELERY, bunches, 50c to \$1. TUR- NIPS, Pa. bu., 75c to \$1. POTATOES, Pa. & N. J., 100-lb. sack, \$2.50 to \$3. SWEET POTATOES, 3-lb. bskt., \$1 to \$1.15. MUSHROOMS, 3-lb. bskt., whites, 75c to \$1.

NEW YORK

Butter.—Creamery, higher than extras, 35 to 36c; firsts, 31 to 34c; seconds, 30 to 31c.
Eggs.—White, nearby, average extras, 44c; mediums, 40 to 41c.
Poultry.—Live, by freight, fowls, 25 to 28c; old roosters, 18c; geese, 16c; ducks, 28c; turkeys, 25 to 35c.

LANCASTER

Butter.—Country butter, 50 to 55c; creamery butter, 45 to 50c.
Eggs.—Fresh, 40 to 42c.
Poultry.—Live, by freight, fowls, 25 to 28c; old roosters, 18c; geese, 16c; ducks, 28c; turkeys, 25 to 35c.
Vegetables.—A SPARAGUS, 25c per bunch. BEANS (string), 30 to 35c 1/4 peck. BEANS (lima), 35 to 40c pint box. B.E.T.S., 3/4 to 10c bunch. B.S. & L.S. SPINACH, 10 to 20c bunch. CABBAGE, 10 to 20c head. CARROTS, 8 to 10c bunch. CAULIFLOWER, 2 to 3c head. CELERY, 10 to 20c bunch. CUCUMBERS, 10 to 15c each. EGG PLANTS, 10 to 20c head. ENDIVE, 5 to 10c head. LETTUCE, 10 to 20c head. MUSH- ROOMS, 25 to 30c per pt. box. ONIONS, 20 to 25c 1/4 pk. ONIONS (green), 10c bunch. POTATOES, 15 to 20c 1/4 pk. \$1.75 to \$2 bu. POTATOES (sweet), 25 to 30c 1/4 peck. TURNIPS, 15c 1/4 pk. SPINACH, 20c 1/4 peck. CELERY, 8 to 15c per stalk. PARS- LEY, 2 to 3c per bunch. SAUER KRAUT, 15 to 20c per quart.

Pittsburgh

Butter.—Creamery prints, 92 score, 42 to 44c; tubs, 41 to 42c; local tubs, 37 to 38c.
Eggs.—Select white, 31 to 33c; brown, 30 to 32c; current receipts, 26 to 28c.
Poultry.—Live, heavy, 27 to 28c; Leg- horns, 25 to 27c; springers, heavy, 21 to 27c; Leghorns, 19 to 22c; roasters, 23 to 26c; geese, 15 to 21c; pigeons, 40 to 50c per pair.

CHICAGO CASH GRAIN

Chicago, Ill., Feb. 24.—The following cash prices ruled here today: No. 1 hard wheat, \$1.20; No. 3 yellow corn, 75 to 80c; No. 1 mixed corn, 74 to 76c; No. 2 white oats, 41 to 42c.

FEED MARKET

The following quotations are for transit and nearby shipment February 21, according to the U. S. Bureau of Agricultural Economics. They show the approximate cost of feed per ton (all in 100-lb. sacks) and grain per bushel in carlots arrival draft basis delivered on track at Phila- delphia and Scranton rate points:

Barley, \$3.50 to \$5; standard middlings, \$3.30; floor, middlings, \$3.50; cottonseed meal, 43 per cent, \$4.25; gluten feed, \$3.50; No. 2 white oats, 53 to 54c; No. 2 yellow corn, \$1.01.

HAY AND STRAW

Philadelphia quotations.—No. 2 timothy, \$18.50; No. 3 timothy, \$15.50; sample hay, \$13; No. 1 mixed clover, \$18; No. 2 mixed clover, \$15.50.
No. 1 straight rye, \$18; No. 1 wheat straw, \$12.50.

METCALF'S

(Seeds of known Origin)

SEED OATS ALBERTA CLUSTER

After testing various varieties we recommend Alberta Cluster as the most profitable variety we can offer our trade. We import directly from western Canada where these Oats attain great vigor. The seed bushels often weigh 48 lbs. Customers have reported yields up to 80 bushels per acre. Packed in strong three-bushel bags, which are free. Prices:—\$1.25 per bu. 32 lbs.

Big Value In Clover

Verified by United States Government as to Quality

NORTHWESTERN GROWN

High Purity and Germination **\$13.95**

Freight paid on 60 lbs. or over. per bu.

Metcalfe's Re-cleaned Timothy 99.60 to 99.85% pure. \$3.65 per bu. 45 lbs.

TIMOTHY and ALSIKE Mixed—20% Alsike.
\$5.25 per bu. 45 lbs.

ALPALFA—Metcalfe's Re-cleaned Northwest- ern Genuine Grimm, Sealed Bags
\$24.75 per bu. 60 lbs.

Strong Cotton bags included free.

Catalog and Seed Samples FREE.
Write today, mentioning crops you wish to grow.

B. F. METCALF & SON, Inc.
118-G North Warren St., Syracuse, N. Y.
Seed Headquarters Since 1910

IRON AGE

Traction and Engine
High-Pressure Sprayers

Cover 4 to 6 Rows—Give Complete Coverage of Plants

The IRON AGE Four-Row, Drop-Nozzle Traction Sprayer delivers spray from three angles, pressure up to 300 lbs. IRON AGE Underslung Engine Sprayers cover up to six rows at pressures as high as 450 lbs. Widest Spray Boom made rigid by exclusive "Non-Whip" device.

Illustrated Folders on Sprayers and Potato Planters—Write for them.

FRED. H. BATEMAN CO.
666 Chestnut Street Public Ledger Bldg.
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We're Booking
March Orders Now

Our giant incubators are filled with hatching eggs from our select and special matings. Orders are pouring in for immediate March and April deliveries. You take no chances when you order from the old reliable Pine Tree, America's pioneer hatchery. Get our low prices on all leading breeds.

Our 38th Annual Catalog
is a beauty. And it's packed full of chicken secrets—things every poultry- keeper wants to know. Not fancy theories but facts based on a long life-time's experience. Write for your copy.

PINE TREE HATCHERY
Box F, Stockton, New Jersey
JOS. D. WILSON
Founder and Owner Since 1892

BABY CHICKS

LORD FARMS

S.C. White Leghorns
GUARANTEED
To Pay You Better

Lord Farms Grade-A Chicks must pay you better than any other. We'll refund difference in cost. The result of twenty years' transporting and pen-rearing to produce a hardy Leghorn strain—dependable layers of large snow-white eggs.

1930 Edition of Great Book FREE to Eastern Poultrymen
Hundreds of ambitious fowls have started in the poultry business with Lord Farms Year Book as their sole guide. This agricultural college course on request gives you supplementary text, book, Western poultrykeepers pay \$1 a copy for this 100-page illustrated book, but we'll send you our copy free. Write today.

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Free Power for Pumping

A stream, spring or artesian well will operate a Rife Pump and pump water for house, barn, garden, swimming pool or fountain. No fuel, oil or electric current needed. Can use air pressure or open tank. For more information, write Rife Hydraulic Mfg. Co., Dept. C, 30 West St., New York City.

In the Pennsylvania Farmer are Names

—names of advertised products. Time and again you see them. They are like old friends—to be trusted. Their names mean economy, full value and integrity. Tell the manufacturer you saw their ad in Pennsylvania Farmer.



Mr. Amandus Larson, left, and his son, of Ridgway, Elk Co., Pa., with some of the potatoes grown last season with AGRICO, the premier "AA QUALITY" Fertilizer. Their crop averaged 310 bu. per acre, or 185 bu. per acre above average.

185 bu. MORE Potatoes Per Acre

LAST season the average yield of potatoes in the vicinity of Ridgway, Elk Co., Pa., was about 125 bushels per acre. Compare this with the yield obtained by Amandus Larson & Son, of Ridgway, who wrote, on Jan. 3, 1930, as follows:

"Our potato yield in 1929 was estimated early in August to produce over 400 bu. per acre. Had weather conditions held favorable, the crop would have been a record-breaker. As it was, our yield was 310 bu. per acre of clean, marketable potatoes. The first 50 bu. harvested sold for \$2.40 per bu., and the re-

mainder brought \$1.90 per bu., whereas the average yield in this community was 100 to 125 bu. per acre and the price \$1.60 per bu. or less.

"Even with poor weather conditions, our 1929 crops, grown with your AGRICO, were the best we have ever had. We intend to use AGRICO exclusively in 1930 to make our soils more productive and to increase our yields and profits."

130 Bu. of Corn Per Acre

Results like these are by no means exceptional where AGRICO and the other "AA QUALITY" Fertilizers are used. Every kind of crop planted in this locality shows similar results. Take corn, for instance. Mr. L. S. Hummel, Manager of Rolling Rock Farms, Ligonier, Westmoreland Co., Pa., reports a yield of 130 bu. per acre from 24 acres grown with "AA QUALITY" Fertilizer. The average yield in that locality was 75 to 95 bu. per acre.

Mr. Hummel wrote, on Dec. 16, 1929: "Our yield averaged 130 bu. per acre. The ground is rather thin, but the ears were filled out with kernels, clear to the ends of the cobs. This we credit to your Fertilizer. We have made comparisons with other makes of fertilizer and 'AA QUALITY' always proves the most profitable."

"AA QUALITY" Fertilizers produce bigger crops of better quality because they are compounded and blended to provide a continuous supply of available plant foods throughout the entire growing season.

Try "AA QUALITY" goods this year. There is a dealer near you. See him this week.

"AA QUALITY" Fertilizers

Manufactured only by

The AMERICAN AGRICULTURAL CHEMICAL Co.

Baltimore, Md. Buffalo, N. Y. New York, N. Y.

Every dollar you save in your purchases is a dollar added to the profits of your farm.

Every dollar spent for unsatisfactory merchandise is a dollar added to your costs. Read the advertisements and be guided by them.

ANSWER THEM and say you saw their advertisement in the Pennsylvania Farmer.

Mr. Woodchuck's Views

IN our pasture field, close to a good spring and not far from a clover field, lies a large stone, under which a couple of groundhogs have made their home for years. Being tired of salt pork, I took the gun and sallied forth on the morning of February 1, thinking to procure a woodchuck for dinner.

The sun was shining bright though the air was crisp and cold. When I approached the boulder I heard a rushing of dry leaves and Mrs. Chuck said: "Nebuchadnezzar, get up! It's February 1 and you've slept for three months. We must not disappoint the people by not telling them what the weather will be. The baby has been restless for six weeks." Old Neb, man-like, grunted and rolled over. Soon Mrs. Neb. stuck her head out, retreated and said: "Oh, Neb. There's a horrid man outside with a gun.

Soon Neb's hoary head appeared, necktie awry, and said: "Come on, it's nobody but the old Jigger. He couldn't hit the side of a barn."

A High Record

This rather riled me, as I have an almost 100 per cent record as a sportsman, never having missed a bird and but one rabbit. (I never shot at a bird and at but one rabbit.) They dived in the water and, like a couple of kids, tried to drown each other, splashed and squealed and were so emaciated and appeared so happy I did not have the heart to shoot.

I told old Neb. that I represented the Pennsylvania Farmer, the best rural paper published in the state, and as the chucks were all ruralites and the paper, knowing he was an influential citizen of the chuck republic, sent me to procure a short interview.

He said before the white man came they had good times. Their republic extended from the Great Lakes to the Gulf and to the Mississippi river. "Being vegetarians, we lived at peace with all the other animals. We could easily outwit the Indians and could choose homes in the most advantageous locations.

Would Petition Congress

"But the white man cleared the land and removed the stones and dried up the springs, and with his high powered rifle he can shoot us from a half mile. His kids and dogs take pride in worrying us, and now when meat is high and so many men out of work we are hunted for the few pounds of savory meat in our carcasses. But we are in hopes that Senator Grundy will feed the infant industries of Pennsylvania plenty of protection, so they can give employment to would-be sportsmen. If not there will soon not be enough of us left to prognosticate the weather.

"We are going to petition to Congress to compel the farmers to at least leave one stone pile or boulder in each field for a house of refuge, and as all other meat or fur-bearing animals are protected, we want at least ten months of the closed season on groundhogs. The open season to be December to January.

"Our quarters are getting somewhat crowded and after breakfast we intend to spy out locations for homes for some of our boys. But Samantha is calling for breakfast and I find it saves trouble to obey Samantha promptly, so au revoir."

O. C. Sigworth.

McGuffey Readers

THE McGuffey readers and Ray arithmetics that many of us studied during our young life were milestones, but we have not realized it until now. That is what we often hear these days. I sometimes wonder if there isn't more than a grain of truth in such statements.

"Compare the McGuffey readers with those of today," one very scholarly man remarked. "The latter are a mess of fairy tales woven so thin they are not even plausible. And the modern arithmetic! Why, if it wasn't

What Bonds Shall I Buy?

HUNDREDS of thousands of investors have answered this question by purchasing in the last 12 years more than a \$1,500,000,000 worth of Federal Land Bank Bonds mutually guaranteed by the Twelve Federal Land Banks under the conditions stated in the Farm Loan Act. Backed by first farm mortgages upon hundreds of thousands of farms, these bonds offer conservative investors all the features deemed desirable in long-term, safe investments—stability of income, ready collateral, marketability, desirable maturities, and tax exemption. These features are reflected in the interest rates. Interest is paid semi-annually.

The 12 banks have total capital, legal and other reserves and undivided profits, aggregating more than \$84,000,000. Their total assets exceed \$1,300,000,000.

Although operating since 1916, through the worst depression ever experienced by agriculture, the net carrying value of the real estate, sheriffs' certificates and other items owned by the Twelve Mutual or Cooperative Federal Land Banks on November 30, 1929 was only 1.1 per cent of their assets. This mutual system—the 12 banks and 4662 local National Farm Loan Associations—affords the investor the added security of diversification, for it operates not in one or two states, but throughout the United States.

From time to time these 12 banks make offerings of their bonds. Write the nearest Federal Land Bank or the Fiscal Agent for Circular No. 16.

The Federal Land Banks of
Springfield, Mass. St. Paul, Minn.
Baltimore, Md. Omaha, Neb.
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New Orleans, La. Berkeley, Calif.
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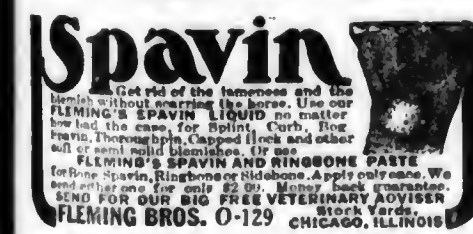
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"Don't Let Pain Keep You At Home!" Tired by millions of busy people instead of the few who suffer from Rheumatism, Neuritis, Sore Muscles, Headache, Stiff Joints, Gout, Sprains, Cuts, Bruises, Burns, etc. Rub it on or breathe antiseptic vapor for relief. Contains a pleasant, soothing, warming oil. Rub it on or breathe antiseptic vapor for relief. Contains a pleasant, soothing, warming oil. Rub it on or breathe antiseptic vapor for relief. Contains a pleasant, soothing, warming oil.

OATS

SELECTION—One of the most productive oats in cultivation. 75 bu. and upward per acre are from 4446 bu. per measured bu. of the highest quality. We are making an exceptionally low price in quantities. Try should by all means try these oats. Also Early Chicago and White Can Seed Corn. Heated and Shelled Barley, Soy Beans and Sweet Clover. Write us for samples and prices.

THEO. BURT & SONS Box 50, Moline, Ohio



Spavin
FLEMING BROS. O-129 CHICAGO, ILL. 1018

STRAWBERRIES
PAY
Readers of Pennsylvania Farmer can't afford to miss a single issue. Watch the label date of your paper and don't let your subscription expire. We stop papers promptly on expiration, unless you renew.

that there are still some of Ray's old arithmetics lying around we would be lost in a labyrinth of Chinese puzzles that have been substituted for arithmetic.

"In the McGuffey books almost every lesson was an inspiration to the youth. The McGuffey readers gave lessons of temperance, spiritual lessons, love of home, honor of parents, Paul's sermon on Mars' Hill, Christ's sermon on the Mount and stories and poems touching every phase of life."

This man continued: "If you had McGuffey in the schools today there would be no trouble about the reading of the Bible in classrooms, and I believe the next generation would see less crime in our country." McGuffey's readers first appeared in 1836 and were in use until 1907. McGuffey taught in the University of Virginia from 1845 to 1873. He died there.

Within recent years McGuffey societies have sprung up about the country to perpetuate the associations and ideals inspired by the once common study of these famous textbooks of the "little red school." And there is a reaffirmance of the McGuffey theory of educating young America on every hand.

But Times Change

We all have a warm place in our hearts for the McGuffey readers and Ray's arithmetics, but I cannot exactly agree with this man who related the above story to me.

I believe in the McGuffey societies very much and would like to have such a society in our section of West Virginia, but I would not be in favor of adopting the books again as textbooks in our schools.

The McGuffey readers and Ray arithmetics served their purpose well in their day and molded many fine characters, but we are not living now as we did in 1907 or 1836. Neither are our schools as they were then, so it would be turning our school system backward to return to McGuffey readers and Ray arithmetics as a basal text in our public schools.

I have a set of McGuffey's readers and money won't buy them, because I cherish them so highly, but I must confess our present day readers are more practical than McGuffey's readers for our rising generation.

I hope we shall hear from other readers on this subject.

C. B. Alliman.

Marshall county, W. Va.

Warning About Bulls

I HAVE been reading the fatal assaults by bulls and think it time to give warning. Don't trust a bull, not even a quiet or a tame one, for he is liable to change his mind. Keep out of the bull's stall and don't lead him to water, but carry water to him, or go in the entry and loosen the chain at the trough. When you want to tie him, put feed in his trough and tie him from the entry.

The tame ones are just as dangerous as the cross ones. If you have to drive them, take a dog with you. Some one asked if a dog can think. I say yes. We have a bull-terrier that thinks quick and is always willing to be of help. The cattle are all afraid of him, as he bites at them. I raised a good many calves, bulls and heifers, and made pets of some. When they became older the pets were more dangerous than the ones I did not pet. One knocked me down into a gutter of briars. She did not appear to be cross, but I did not dare to drive her, as she was always ready to make a dive at me. We had another that would paw with front feet and roll her eyes and try to jump the fence to get after me, and I never insulted her. We had a bull tied between two milk cows and I had to be very quiet, as he would kick at me, so I won't risk it any more.

Mrs. J. L. Weigand.

Adams county, Pa.



Here Is an Easy Way to Make \$1,000.00

If you were putting a new soap on the market what would you call it? You would give it some name—either simple or fancy—what would that name be? I know you have a name in mind now, or you can suggest one after a few moments' thought. The very name you select may win the \$1,000.00 I am offering. It makes no difference whether you live in the country or city, if you are educated or not, if you are rich or poor, I want you to help me by suggesting a name for my new soap. We have paid thousands of dollars to prize winners and in almost every instance the person who first expected to win received a prize. You, too, may win by sending a suggestion. It costs you nothing to try. You have everything to gain and nothing to lose, for any name may win. This soap is fragrant, lathers freely, promotes a smooth soft skin, is excellent for the bath, washing the hair, etc. A coined word such as Clean-Easy, Cloth-All, or the name of flowers, trees, etc., or any other name you think of may be submitted.

Absolutely Nothing Else To Do

Remember there is no obligation. The person sending the name we choose will win this handsome prize. Nothing to buy or sell—nothing else to do to win. Think of the pleasure this prize can bring you, the places you could go, the things you could buy, with \$1,000.00, or \$1,000.00 cash, if you are prompt. Wouldn't it be delightful to win? Wouldn't it be a pleasant surprise to your friends? Don't think you can't win for your opportunity is just as good as anyone's. If you will send in a name. Do it right now! For the very name you send may win.

YOU CAN'T LOSE

because other contestants submit the winning name first, as we will give duplicate prizes to all who send the winning name. If the name you send wins, you will receive \$1,000.00 regardless of how many other people have submitted the same name. This means you can't lose by others submitting the winning name first.

\$100 Extra For Promptness

To get quick action we are going to pay the winner an extra \$100.00 for promptness, or \$1,100.00 in all—no send your suggestion AT ONCE!

CONTEST RULES

This contest is open to everyone except members of this firm, its employees and relatives. Each contestant may send only one name. Sending two or more names will cause all names submitted by that person to be thrown out. Contest closes April 30, 1930. Duplicate prizes will be given in case of a tie. With the promptness prize of \$100.00 extra, the winning name suggested must be mailed within three days after our announcement is read.

Mr. G. B. Blake, Contest Manager, Dept. 188, 715 Fifth Ave., Des Moines, Iowa. Enclosed with this coupon on separate sheet is my suggestion for a name.

Date this announcement was read
Date my suggestion is mailed
Name
Address
NOTE: Being prompt qualifies you for the extra \$100.00 as outlined in this announcement.

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Combining traditional hospitality with attentive service, enjoyable environment and the most modern hotel appointments.

Twelve hundred rooms, each with bath
Rates commence at \$4.00

HORACE LELAND WIGGINS, Managing Director

for Swollen Tendons

Absorbine will reduce inflammation, strained, swollen tendons, or muscles. Stops the lameness and pain from a splint or soft corn. No blister, no hair gone, and horse can be used. \$2.50 at drugstore, or postpaid. Describe your case for special instructions. Interesting horse-book 2¢ free.

From a race horse owner: "I had Absorbine on a yearling mare with strained tendons. Coli all over lameness, though for a time couldn't take a step at all."

ABSORBINE

W. F. YOUNG, Inc. 354 Lloyds St., Springfield, Mass.

NEWTON'S

Hemorrhoids, Coughs, Croup, Whooping Cough, Sore Throat, etc. Two canisters for \$1.50 per can. Dealers or by mail. The Newton Remedy Co., Toledo, Ohio.

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CRAWFORD COUNTY CATTLE

Medically accredited and the first in the state. Can generally supply buyers with anything in Pure-bred or Grade Holstein, Jersey, Guernsey, or Milking Shorthorns they may be in need of. Quick shipment to any part of the East. Pedigree and service without cost to you.

CRAWFORD CO. COOPERATIVE DAIRY IMPROVEMENT & SALES ASSOCIATION, Market House, Meadville, Pa.

Holstein Bulls for sale, from an accredited herd, from calves to serviceable bulls. Two canisters for \$1.50 per can. Dealers or by mail. The Newton Remedy Co., Toledo, Ohio.

HOLSTEINS—Good individuals backed by practical production records from a clean herd. Inquiries solicited. Crows Farm, Inc., Clinton, Pa.

PENSHURST AYRSHIRES—Combined high production, large size, with good quality. Accredited, tuberculosis and abortion free. Calf calves at farm prices. Raise them now while surplus milk is cheap.

PENSHURST FARM, Narberth, Pa.

AYRSHIRE CATTLE of the best blood lines. Herd T. B. Accredited. Animals of both sexes, all ages. Geo. B. McCannell, Wellington, Ohio.

NOVA FARM GUERNSEYS—"The original Shady Side Herd" Federal accredited and negative blood test. Cambridge Springs, Pa. John Chaboum.

REG. GUERNSEY BULLS—Herd T. B. Accredited. Animals of both sexes, all ages. D. A. Morrow, Tyrone, Pa.

TWO PURE-BRED GUERNSEY COWS, three years old, blood-tested and accredited. Yearling bull. **JOSEPH G. KENZEL**, Aiglen, Pa.

REGISTERED GUERNSEY HEIFERS, good type, good bred, blood-tested, free from T. B. and abortion. **GEORGE S. HAVENS**, New Hope, Pa.

JERSEY BULL CALVES, Sired by a son of St. James' Pontiac's "Toga" Hattie No. 476997, grandson of "Toga" No. 229498, from dam of "Toga" No. 229498. Blood-tested, free from T. B. and abortion. **C. E. HOFF**, Sabula, Pa.

For Sale 25 head young Jersey cows and heifers, all registered, Sybil and all interest breeding. Federal accredited herd and blood tested. Inquire **HIGHLAND FARMS, Huff Ridge, Greensburg, Pa.**

Two Reg. Jersey Bull Calves, 4 wks. old. Two, 8 mos. two ready for service. Heifers, Accredited herd. **C. F. & M. W. Richards**, Gettysburg, Pa.

REGISTERED JERSEY HEIFERS, bred and younger. Also bulls, best of breeding. **D. J. KENNEDY**, McVeytown, Pa.

CATTLE

MILKING SHORTHORN CATTLE

BIG TYPE POLAND-CHINA HOGS

Beechwood SHORTHORNS

ACCREDITED MILKING SHORTHORN BULLS, up to one year. Females, all ages, best and home. **C. M. KENNEDY**, Ulster, Bradford Co., Pa.

Angus Cattle—All reasonable prices. Write **BAYARD BROS.**, Wayneburg, Pa.

Repeater Bred Herefords—Hulls and heifers, one built like the other, all of breeding. Located in Mercer County, north of Grove City. Write **L. O. McCoy**, R. 18, Jackson Center, Pa.

Herefords, from registered Federal accredited, all times, Personal inspection and correspondence solicited. **George C. Cochran**, Dawson, Pa.

D. S. POLLED HEREFORDS—A fine selection. Cows, heifers, bulls. Come or write. **CHAS. D. GILL**, Millersport, Ohio.

BUCK & DOE RUN VALLEY FARMS

Hereford Cattle—Poland China Hogs, Hampshire and Swift Horses. **THE SAINT AMOUR COMPANY**, Martinsville, Penn.

GOATS

Registered Swiss & Nubians, from heavy milking thoroughbreds. Big Bucks and does, all ages, all breeds. **Lloyd B. Goldsborough**, R. 2, Mohnton, Pa.



HOG DRESSED 783 POUNDS

Enclosed you will find a picture of William O. Adams and son of Dauphin county, Pa., and their Chester White hog. The hog at 30 months of age was seven feet from stem to stern, 3 feet 4 inches high and dressed 783 pounds when killed on February 13, 1930. **W. O. A.**

Dry Beds for Young Pigs

THE spring farrowing season is at hand. This season of the year is beset with a lot of rain and dampness. Keeping the pig nests dry is a real job. On most farms it is a job to be planned beforehand. About the only way to have straw dry enough for young pigs is to have a supply inside and under cover several days in advance of its need.

Straw may appear dry and still harbor a lot of moisture. I once weighed several loads of straw for a farmer buyer—he bought the whole stack, to take only the dry straw. The whole top was thrown off until the pitchers came to satisfactory straw, yet in the end this first load was five hundred pounds heavier than the largest subsequent load that could be put on. The loads decreased in weight right down from the top, only the bottom and core of the stack being really dry straw.

It is just about right to say that straw which has been under a litter of pigs twenty-four hours is damp straw. When little pigs begin to root their way into and under the bed it should be a danger signal, in fact it is a sign of neglect that the bed had not already been renewed. You may not lose the pigs outright by reason of these damp beds, but you lose the pig blood that keeps them active and thriving. **G. P. W.**

Better Flock Contest

TOGA county sheep and wool growers this year will repeat the better flock contest which proved so successful last year, according to W. B. Connell, sheep and wool extension specialist of the Pennsylvania State College.

Features of the schedule of management demanded in the contest include drenching, docking and castrating, use of a pure-bred ram and the maintenance of the flock health. At the conclusion of the contest three fleeces must be shown by each contestant, and he must also exhibit a pen of three lambs and their sire. It is planned to hold a ram sale in connection with the round-up in the contest.

Hot-House Lambs

ALL of last season's lamb crop, except a carload of May-born Delaines now in my feed lot, has been marketed. A few farmers here have begun experimenting with hot-house lambs. E. S. Myton owns a band of medium-wooled ewes, which gave birth to 30 lambs after January 1, 1930, while 23 Delaine ewes in my pens have 24 thrifty Dorset-Delaine lambs. The first lamb was born December 4 and now will tip the beams at more than 30 pounds. Out of 27 lambs born we succeeded in saving 24. Twelve ewes had second-crop lambs.

Wm. Gregory Moore, Huntingdon county, Pa.

HORSES

HYLLMEDE FARM BELGIANS

PERCHERON & BELGIAN STALLIONS

REGISTERED PERCHERON STALLIONS

SWINE

O. I. C. HOGS on time

POLAND CHINAS

BIG TYPE POLANDS

REG. BIG TYPE POLAND-CHINA FALL PIGS

BIG TYPE POLAND-CHINAS

Berkshire Pigs

WOLF CREEK FARM

THREE GOOD

LARGE BERSHIRE

DILTS & GERMAN

Chester Whites

CHESTER WHITES

QUALITY CHESTER WHITE

CHESTER WHITES

FARM LAND

PENNSYLVANIA

MONEY-MAKING FARM

FOR SALE—DAIRY FARM

FOR SALE OR RENT

25-ACRE FARM

DAIRY FARM

MISCELLANEOUS LANDS

WHY PAY HIGH RENTS

WANTED—Hay, Grain, Potatoes, Apples, Cabbages, Onions, Carrots, etc.

WE BUY OR HANDLE

FREE TRIAL

WANTED—Married couple

17 ACRES APPLES, PEACHES, Pears and Grapes

DEER CREEK STOCK FARM

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WHITE MICE

MAKE BIG PROFITS

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FOR SALE.

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7301 Penn Avenue, Pittsburgh, Pa.

12c a word - - per insertion

Minimum charge \$1.20

10c per word per insertion when 4 or more consecutive insertions of the same copy are used.

Advertisements in these columns cover farms for sale or wanted, help or situations wanted, pets, hay, seeds, money, used implements and machinery. In fact anything that the farmer wishes to buy, sell or exchange.

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BABY CHICKS

WHAT'S BEHIND THOSE CHICKS?

BETTER CHICKS

WHITE WYANDOTTES

MASTER BRED TANCER

CHICKS—Barred and White Rocks

CHICKS—Barred and White Rocks

CHICKS—Barred and White Rocks

CHICKS—Barred and White Rocks

CHICKS—Barred and White Rocks

CHICKS—Barred and White Rocks

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CHICKS—Barred and White Rocks

CHICKS—Barred and White Rocks

CHICKS—Barred and White Rocks

TOO VITAL TO BE OVERLOOKED IS TODAY'S NEED FOR FENCE



Your farm is similar in many respects to a large manufacturing concern. Just as the management of a factory must plan floor space and machinery so as to secure the greatest possible production—you, also, must plan to secure the most yield per acre. Only through the use of good fences, permanent and temporary, can this be accomplished.

Zinc Insulated Fences

Today—take pencil and paper and plan fence lines that will secure for you the utmost value from every bit of your land—consider, among other things, the proper rotation of crops, the control of live-stock and the hogging down of corn.

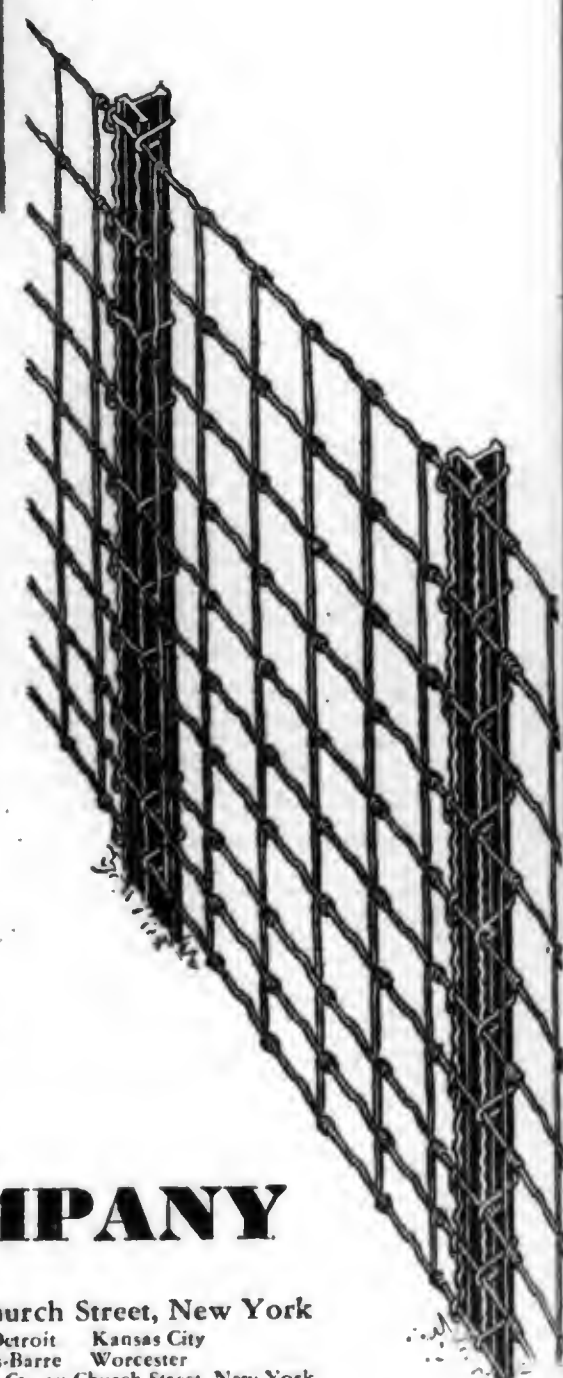
Then—give equal attention to the choice of fence that will best meet your needs. Investigation will convince you that American Steel & Wire Company Zinc Insulated Fences offer the utmost in dollar for dollar value. Sturdily constructed of the finest material and covered with a heavy, uniform coat of zinc, they will give longest life and resist corrosion to the utmost.

Near you is one of our dealers. His store is Fence Headquarters and he will render every assistance in helping you select the type of fence that you need. He also carries either the Banner or Ideal U-shape Steel Posts. Also ask him about the new National Expanding Anchor Dir: Set End and Corner Posts.

AMERICAN STEEL & WIRE COMPANY

Subsidiary of United States Steel Corporation

208 South La Salle Street, Chicago 30 Church Street, New York
Other Sales Offices: Atlanta Baltimore Birmingham Boston Buffalo Cincinnati Cleveland Dallas Denver Detroit Kansas City
 Memphis Milwaukee Minneapolis St. Paul Oklahoma City Philadelphia Pittsburgh Salt Lake City St. Louis Wilkes-Barre Worcester
Pacific Coast Distributors: U. S. Steel Products Co., San Francisco, Los Angeles, Portland, Seattle, Honolulu *Export Distributors:* U. S. Steel Products Co., 30 Church Street, New York



Zinc Insulated Fences
 in the following Brands:
 American, Royal,
 Anthony, Monitor,
 National, Prairie
 and U. S.

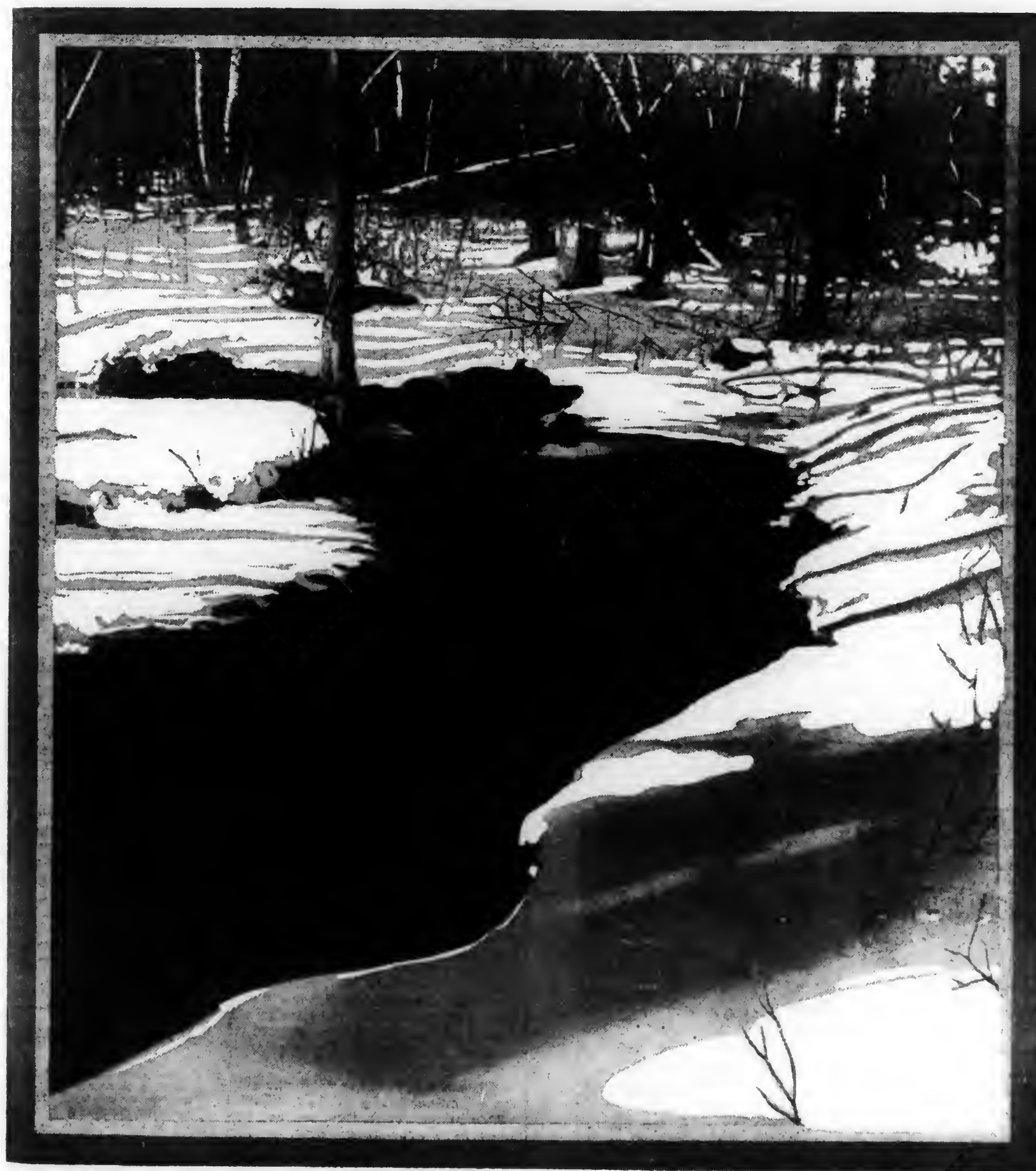
PENNSYLVANIA FARMER

Published
Weekly

Established
1877

Consolidated with PENNSYLVANIA STOCKMAN and FARMER

March 8, 1930



Philadelphia

Pittsburgh

Harrisburg

WHY EVEREADY LAYERBILT "B" BATTERIES ARE KNOWN FOR LONGER LIFE

JUST a few cents extra expended for an Eveready Layerbilt "B" Battery will bring you 25% to 30% longer use than you can get out of an ordinary "B" battery constructed of individual round cells. In addition, the flat-cell construction of the Layerbilt does away with 89 weak spots—wires and soldered connections which are the seat of trouble in the old-fashioned type of "B" battery.

That is why the Eveready Layerbilt is the leader on the "B" battery market today. It is exceptionally well liked in the country, where long usefulness and dependability in batteries count. It is *all* battery. Waste space has been eliminated. You get all "honey" and no "comb."

Eveready Layerbilts are protected by patent—no one else can make them. Look for the name "Eveready" on the label. There are two sizes—the Medium Size and the Large Size. If you have been using medium-size batteries, buy the Medium Size Eveready Layerbilt—No. 485 (price \$2.95). If you have been using heavy duty batteries, buy the Large Size Eveready Layerbilt—No. 486 (price \$4.25).

NATIONAL CARBON COMPANY, INC.
General Offices: New York, N. Y.
Branches: Chicago Kansas City New York San Francisco
Unit of Union Carbide and Carbon Corporation

TUESDAY NIGHT IS EVEREADY HOUR NIGHT. East of the Rockies—9 P. M. Eastern Standard Time, through WEAF and associated N. B. C. stations. On the Pacific Coast—6 P. M. Pacific Standard Time, through N. B. C. Pacific Coast network.



Here is the exclusive Eveready Layerbilt construction. Only five solderings and two broad connecting bands, all other connections being made automatically. Waste space eliminated. Layerbilt construction is a patented Eveready feature.



Here is the inside story about every 45-volt "B" battery assembled of separate, individually sealed cells. There are 30 independent cells, connected by 29 fine wires and 60 soldered connections—69 chances for trouble. Note the amount of space wasted between cells.

EVEREADY Radio Batteries

Farm Facts and Fancies

By ALVA AGEE

THE Federal Farm Board took its ultimate step in attempted control of world wheat prices through the creation of the Grain Stabilization Corporation. Of course it has not gone beyond the provisions of the Agricultural Marketing Act, but it is a step that the Farm Board hoped never would be necessary.

When the Board was created its plan was to encourage cooperative action, and it promoted the creation of the Farmers' National Grain Corporation and advanced money so that producers could be cared for while their wheat was held off the market awaiting an advance in price. This looked good. No American farmer should be in a position compelling him to sell his crop before the time his judgment dictated as the best for him. Seven months after the creation of the Board it became evident that the price of wheat could not be bolstered by such action of cooperatives in which any loss by holding would fall back upon the farmers.

Some Predictions

Our U. S. Bureau of Agricultural Economics believed it had the data a while back justifying a prediction of higher prices. It estimated the reduction in world supplies, outside of Russia and China, at 360,000,000 bushels, and in the September issue of "Crops and Markets" it said: "Taking into account the average annual increase in demand this reduction in supply would normally raise the average in the world markets about 40 to 45 cents per bushel over the average of the past year."

In October it believed that prices would probably average 35 to 40 cents a bushel higher than in the past year. In November it cut the estimate to 25 cents, and in January it said that "the indications are still for some improvement in price."

Watching "Futures"

This is not mentioned in criticism of price prediction by the Bureau, because on the average I believe such prediction can be helpful to the man who does not understand what weight to attach to isolated facts and is concerned with products that are not dealt in for future delivery.

It is probably true that the prices of "futures" in world grain markets, registering as a rule the judgment of our keenest traders who are backing their judgment with their money, may be a more dependable guess on probabilities. Usually they are far afield at some time during the season. One powerful crowd backs one opinion, and another backs the opposite, and our surest fact is that nobody knows.

A Surplus Cannot Be Denatured

My own unimportant opinion is that Europe believed that the Soviet government of Russia would let a good deal of wheat go out for the sake of getting needed credits, making their own people eat rye, etc.. Argentina had more wheat than we counted on, and fundamentally the matter has been that the presence of a world surplus, tightly held for the time in the United States and Canada, exerted its natural influence on the sentiment that makes prices.

When a surplus is in existence buyers are influenced by the fact and hold off from purchases that are not immediately necessities. Anyway, the advancing of government money to the Grain Corporation has not kept the market from sinking, and the wheat growers' advisory committee urged the Federal Farm Board to exercise what have been regarded as emergency powers and to provide means for actual government purchase of wheat to relieve pressure on the price.

Government Wheat

The money advanced for use of cooperatives was a loan, and the presumption is that it was accepted at the farmers' risk. That has not worked out so far, and the emergency step has been taken. Any loss or gain on the wheat bought by the recently formed Grain Stabilization Corporation belongs to the government. It takes wheat off the market in the hope that the price for the remainder will advance, and all of us are now owners of wheat that is to be held at a venture, and later disposed of in some way. As its sale in the summer would affect the market to the disadvantage of the producers of winter wheat when ready for market, no sale is now in sight unless our country figured right and Europe figured wrong, and she must come into the market at a good stiff price. A man like Chairman Legge must be considerably puzzled.

Being "Uncle Sam" to Canada

The situation would not seem so bad if we were protecting our own market alone, but every bushel of wheat taken off the market by our government is that much to Canada's good. She stands to profit by our action because what we do not supply to Europe she can ship when it may seem best to her. I did not expect to see our Farm Board take this emergency step, but the provision for it is in the Marketing Act, and while trying out this matter of price control it probably was just as well to go to the limit.

On the other hand, it has focused the attention of the public press on the fact that the government has started definitely on a road that leads logically, as some other classes of producers will claim, to an effort to fix home prices, on all commodities of which we may have a surplus, by buying and holding the surplus. Disregarding the economic soundness of such a policy, on which many of us differ widely, I believe that all of us will come to see that we are in the curious position of having taken a second step before we took the obvious first step of making sure that production was under control, and especially production in this country and Canada.

A "Crystallizer"

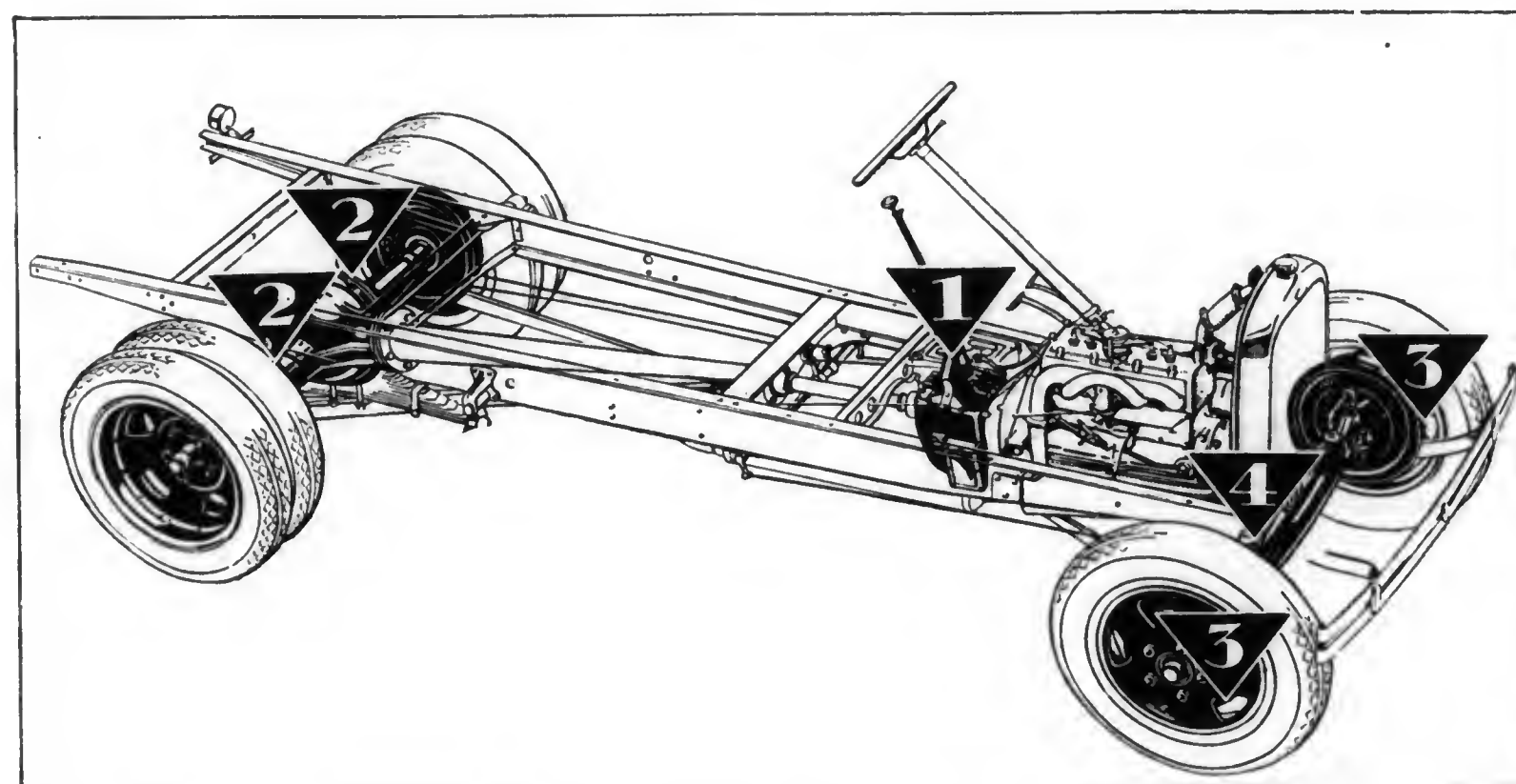
My friend, Dr. H. P. Miller, whose selection as a Master Farmer of Ohio was so merited, will pardon the quotation of a sentence from a recent letter. He says: "I looked on the Board as a crystallizer of commodity marketing pools." That was what many of us banked on, and we can depend on it that the sound, capable men who were chosen by the President as members of the Board hoped that the pools, strengthened by loans from the government, would solve the problem, and would exert an influence on production in doing so. Temporary failure to get quick results has led to use of all the power granted in the Marketing Act.

Sunday Market

Since visiting your roadside market about a year ago we decided to start a small market. Do you remain open on Sunday? How many months do you hold open in the year?

IN response to your inquiry, I never keep my roadside market open on Sunday. Since we have taken some pains to have a succession of fresh things over as long a season as possible the market operates actively from about the middle of May to the end of November, or even later when mild weather prevails. G. S. W.

ANNOUNCING NEW FEATURES OF THE FORD TRUCK



RUGGED STRENGTH is an important feature of the improved Ford chassis. Many parts are of new design. For example, the front axle, which is a chrome-alloy forging, is nearly twice as strong as formerly. The front spring is heavier, with wider leaves. Front radius-rod is heavier, and king-pins, thrust bearings and wheel bearings are larger.

The rear construction is also improved. It has a spiral bevel gear of special Ford truck design, with straddle-mounted pinion. The housing is of exceptionally strong construction. The axle shafts are heavier than formerly, and because of the three-quarter floating design of axle construction, they serve only to turn the wheels, without carrying any of the weight of truck or load.

A feature of the improved Ford truck is the new 4-speed transmission, which provides abundant power for moving capacity loads, and ample speed where time saved is an important factor.

Brakes on the front wheels have been enlarged to the same size as those on the rear wheels, providing increased braking area and a high degree of safety.

The four-cylinder engine of the Ford truck develops 40 horsepower at moderate speed. This means that nearly its full power becomes available without the need for excessive speed. Especially important to the reliability of the engine is the simplicity of the electrical, ignition, cooling, lubrication and fuel systems.

Other chassis features, many of which are unusual in a truck of such low price, are the cantilever rear springs; the torque-tube drive; and the dual rear wheels at small additional cost, making possible the use of balloon tires the same size throughout, so that all six steel disc wheels and tires are interchangeable all around.

You can inspect the improved Ford truck, today, at the showroom of your Ford dealer.

1 4-SPEED TRANSMISSION

A wide, flexible power range

2 NEW SPIRAL BEVEL GEAR REAR AXLE

Rugged strength and long life

3 LARGER BRAKES

Providing a greater degree of safety

4 NEW FRONT AXLE AND SPRING

Front construction unusually sturdy



Is your Spade a Crutch



...after the Day's Work?

At the end of the day, which is it? Do you go home with your spade over your **SHOULDER**? Or do you use it as a **STAFF** most of the way? Which of these two men in the cartoon is **YOU**? That depends on how you have been treating yourself. Especially your **FEET**. Your feet affect your whole body.

Now look again at the cartoon. You see both men are carrying spades. Both have on clothes that look the same. Their boots, also, **LOOK** the same. But they are **NOT**. The cheerful looking man wears Goodrich Boots. His feet have been **COMFORTABLE** all day. He walks with a **SPRING** in his step. Things look bright to him. That shows on his face. But look at the **OTHER**.

What is the matter with him? Simply that he has been wearing a pair of stiff, heavy boots. You can't feel very happy if your feet ache and feel like a couple of tons of lead. You'd be all **WORN OUT**, too, if you had boots like this pulling at your feet for twelve hours like a ball and chain.

Lightening foot burdens

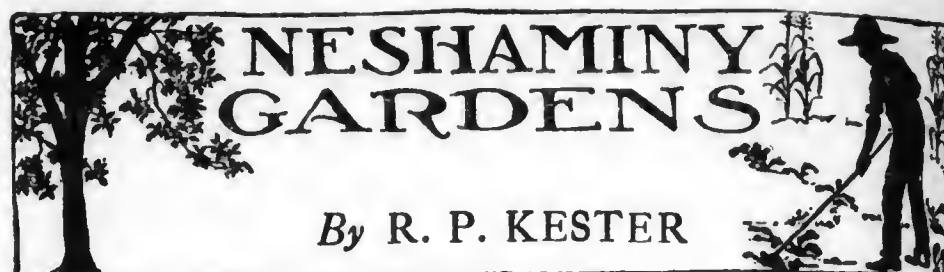
Well, there is no need for him to be like that. Or for you. Goodrich has found a way to **LIGHTEN** the foot burden. **YEARS OF EXPERIENCE** in the making of automobile tires. The help of the great Goodrich research labora-



Goodrich 4-buckle over-shoe. Light and tough—like Goodrich Boots.

Goodrich

Rubber Footwear for Every Member of the Family



By R. P. KESTER

THIS is written on George Washington's birthday. I have no way of knowing what kind of a day it was 198 years ago, but if it was anything like today it was a most auspicious day for the Father of his Country to make his appearance. The sun is shining, the birds are singing, and the dirt roads are knee-deep with mud. As long as I can remember people have made much of this date. In later years some writers have tried to lessen the esteem in which Washington is held by American people by proving that he was a human being. But he stands upon a firm pedestal, and even though scavengers cover the statue with mud, the material underneath is not harmed.

Our lawmakers are always glib in quoting Washington on every conceivable subject, pro and con. Whether the question is tariff, prohibition, European entanglements, war, peace, or what-not, Washington is quoted freely. But why is it that the subject which was dearest to him, and the business which he loved above every other—agriculture—is neglected by modern writers and speakers?

A P. S. to a letter from a New Jersey reader asks about using chicken manure on his apple and peach trees. He says that the apple trees are inclined to grow too much top, and that the peaches last year were speckly and wormy. When trees grow too fast it shows they already have an excess of nitrogen, the chief element in chicken manure. The worms and specks may be prevented by proper spraying. If the writer is not informed on how and when to spray, he should get in touch with his county agent and get full information and instruction from him. Also, send to the Experiment Station, New Brunswick, and ask for bulletins on spraying peaches for insects and diseases.

In spite of all that I have said about the capacity of tractors, still some people persist in trying to find a garden tractor strong enough to do a big tractor's work. Yet these same people have more sense than to hitch a single horse to a four-horse load and expect him to pull it. Garden tractors are made primarily to do such work as one horse would do in the way of cultivating, marking out, covering seed, drawing a small disk. Good ones will plow with an eight-inch plow in soil that is in good tilth. But no sane man would go into a ten-acre field with one horse and a small plow and expect to do a thorough job of plowing.

Some of them are used because they will make a boot comfortable and flexible. Others because they give service and wear well. But no matter what they are used for, they **WORK TOGETHER**... they **BLEND**.

In the same way balance allows boot and body to work together. Balanced boots won't wear **YOU** out. You can't wear **THEM** out. Let your feet **FEEL** the difference.

The B. F. GOODRICH Rubber Co., Est. 1870, Akron, Ohio. Pacific Goodrich Rubber Co., Los Angeles, Cal. In Canada: Canadian Goodrich Co., Kitchener, Ont.

ing sponsored by Pennsylvania Farmer. It will be a grand trip and I am sure that everybody on it will come back wiser and richer—richer in things that really count. Well, our turn may come yet. Never to have been farther south than Alexandria, Va., nor farther west than Topeka, Kansas, is to admit being provincial in these days. Yet I know some people who have been around the world and never saw anything but a guide book.

Friendly Talks

By Edgar L. Vincent

"Oh my, Jasper! Don't dip to the bottom!"

"They had a big family of boys and girls, that good farmer and his wife, and it was no easy matter in those days long ago to make ends meet. Only once in a great while did Aunt Caroline indulge her big swarm of boys and girls with 'minute pudding,' with maple sugar shaved up in milk for a dressing; and when Jasper dipped to the bottom, he got the very best, sugar, cream and all, and the other boys and girls had to go on short rations. Then Aunt Caroline would burst out, 'Oh, my, Jasper! Don't dip to the bottom!'"

That was a long time ago, but wonder if folks, young and old, are not just about as apt to "dip to the bottom" now as they ever were. Maple sugar shaved up in cream is good, no mistake about that, and there is something about us all that makes us like to reach to the bottom of the bowl and bring up the best there is, and let other folks shift for themselves.

One of the hardest battles we have to fight is to be fair enough and square enough to stir the cream bowl all up well, clear from the bottom before we take a dip ourselves or pass it on to some one else. And yet, how much happier we are after we have done just a little thing like that than we are when we have scraped the sugar bowl clean and left the thin milk for other folks!

Now, I expect somebody is just ready to ask, "How can I help being selfish sometimes? It is my nature. I was born that way." And I do not know of any way to do it except to fight, tooth and nail, till the miserable disposition has been conquered.

Porcupines, you know, point out their quills in every direction when they are attacked. It is the same way with selfishness. We are pretty likely to get many a keen-pointed arrow to our hearts, minds and souls if we begin this struggle against self; but nothing else will give us the victory.

SPRING ROSE CARE

EXTRA care is needed if rose plants are to be started in the spring, but plump stock planted very early will produce good plants. Late spring planting is always attended by high mortality unless potted roses are used. This is a warning included in "Garden Roses," a new bulletin written by Alex Laurie of the department of horticulture of the Ohio State University.

"When the plants arrive they should be unpacked at once, the roots placed in water for an hour, and then planted," says the bulletin. "If it is impossible to plant them when they arrive, the roses should be heeled in a trench and covered with soil until they are planted."

More Readers on Farms in Pennsylvania than Any Other Farm Paper

PENNSYLVANIA FARMER

Published Weekly

Established 1877

Consolidated with

PENNSYLVANIA STOCKMAN and FARMER

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Vol. 102

Pittsburgh, Pa., March 8, 1930

No. 10

A NEW church was nearing completion on a lot just back of my home in the Old North State. Preparations were being made to apply the finishing coat of plaster. A hole about eight feet in diameter and five feet deep had been filled to the level of the ground with lime paste or cream of lime. Returning from the post office rather hurriedly one summer day, for my girl was waiting for me around the corner, I took a short cut across the church lot and walked into this pit of lime paste and sank to the base of my three-inch collar. (We wore them high in those days.) Had the hole been two feet deeper, this story would never have been told—perhaps it should have been deeper—much deeper.

I thus got a baptism in lime and became more intimately associated with it even at an early age than any one of my generation. A few years later I found myself a member of the Experiment Station staff at Pennsylvania State College in a land abounding in sour soils, and at the same time the greatest limestone producing state in the Union. The abundance of limestone in this section is illustrated from the fact that my house and a stone retaining wall 350 feet long and four feet high were made from high-grade limestone secured from the excavation. My baptism in cream of lime and later my permanent house constructed of limestone leaves no avenue of escape from more or less constant thought concerning the properties and value of lime as an important step toward permanent agriculture.

My early associations with the late William Frear, Thomas F. Hunt and also Alva Agee served further to stimulate my interest in lime and led to a study of the sour soils of the Keystone State and eventually to the establishment of a series of field plot experiments, including 279 plots designed to study the value of different forms and amounts of lime in relation to economic crop production.

As a result of these field plot studies, together with a detailed lime requirement survey, it was concluded that there is no one soil condition more prevalent in the humid region and possibly none

| Average Annual Yields per Acre | | | | | |
|--------------------------------|------------------|------|------|-------|--------------|
| Average of Three Soils | | | | | |
| | Clover & Timothy | Corn | Oats | Wheat | Rough-Field |
| | Hay | Bus. | Bus. | Bus. | Pounds Crops |
| Ground burnt lime 3793 | 49.5 | 37.2 | 23.3 | 2425 | 4281 |
| No lime | 1805 | 20.3 | 28.2 | 10.4 | 1399 |
| Limestone | 3867 | 49.3 | 46.1 | 23.2 | 2561 |
| Hydrated Lime | 3720 | 50.4 | 48.5 | 21.2 | 2603 |

(*) Weeds. (†) Average of two soils.

that has a greater controlling influence on the growth of crop-producing plants than soil acidity. This undesirable soil condition is a complex one, involving many factors which tend to arrest the normal functions of the soil.

The presence of toxic substances, both organic and inorganic, the absence of basic lime and decreased availability of essential plant food constituents, no doubt, all play a part in bringing about conditions unfavorable to the best development of the chemical, physical and biological properties of the soil. It has been shown conclusively that when some form of basic lime is applied in sufficient quantity to these sour soils the undesirable properties disappear and the soil will again become productive under proper management.

The Agricultural Lime Market

Prior to 1911 the major portion of lime sold by American producers for agricultural use consisted of burnt and hydrated lime. Since that time the trend has been toward the use of pulverized limestone to the exclusion of the more concentrated form. Thus in 1911, 770,954 tons of burnt lime, hydrated lime and pulverized limestone were sold by American producers for agricultural use, of

Lime for Sour Soils

By J. W. WHITE

which 77 per cent was in the more concentrated form. In 1926 a total of 2,147,610 tons of the three forms of lime was sold for agricultural use of which only 13.9 per cent in the more concentrated form and 86.1 per cent pulverized limestone.

In 1926 a total of 2,214,674 tons of agricultural lime was sold by producers, including the following percentages of different forms: burnt lime 5.9, hydrated 8.3, oyster shells 0.5, marl 2.5 and pulverized limestone 82.6. This tonnage of agricultural lime does not represent the total amount actually used for soil improvement, for a large tonnage of limestone road screenings is used, also considerable agricultural lime is sold by small unlicensed producers including by-product lime.

The keen competition in the sale of agricultural lime is shown by the fact that in Pennsylvania



Effect of lime on yields of soy-bean hay. The author is showing you the extreme yields from a limed and unlimed area—limed soil 6,972 pounds and unlimed soil 1,754 pounds of hay per acre. Pays to use lime, doesn't it?

102 firms are licensed for the sale of 177 brands of agricultural lime products. Agricultural lime is largely a by-product from industrial plants. Farmers of the Keystone State are using the following ten different lime products: pulverized limestone, oyster shells, precipitated lime carbonate, (by-products from chemical plants), marl, hydrated lime (high and low magnesia), burnt lump lime, ground burnt lime, blast furnace slag ("agricultural slag"), gypsum and waste lime from tanneries, gas plants, etc.

Relative Crop Producing Value of Three Forms

The Pennsylvania lime experiments have furnished valuable data on the importance of liming, and value of different forms in production of grain and hay. The summary table on the first

column of this page based on the average results of three widely different soils serves to show the importance of lime on eastern soils.

In the lime experiment the three forms of lime are applied on the basis of equal units of lime oxides in amounts sufficient to correct the initial lime requirement of the soil. All plots are uniformly supplied with

the same amount of fertilizers, so lime becomes the limiting factor. The above results show that there is no significant difference in the crop producing value of the three forms of lime. These data further emphasize the importance of lime in the rejuvenation of sour soils so abundant in our eastern states. Based on the average yields due to the three forms of lime, corn was increased 145 per cent, oats 56 per cent, wheat 127 per cent and hay from weeds to 3,793 pounds per acre.

Comparative Values of Limestone and Agricultural Slag (Blast Furnace Slag) in the Production of Hay

Within the last few years specially prepared blast furnace slag has been sold in several eastern states as a source of agricultural lime. This material is placed on the market at the present time in granular form prepared by running molten slag into cold water. The slag is broken down into small porous particles through the process of rapid cooling and becomes quite brittle. The lime is present in the form of calcium silicate equivalent to from 45 to 52 per cent lime oxide (CaO).

This new form of agricultural lime is now being studied at the Snow Shoe experiment fields on

| | Clover & Timothy | Soy | Ky. Blue-grass | Sweet Clover |
|----------------------|------------------|------|----------------|--------------|
| No lime | *617 | *651 | 3010 | 1599 |
| One ton limestone | 1666 | 1122 | 5651 | 2145 |
| One ton agr. slag | 617 | 634 | 4362 | 2096 |
| Two tons agr. slag | 1880 | 1105 | 4806 | 1711 |
| Three tons agr. slag | 1855 | 1117 | 5636 | 2548 |

(*) Weeds.

DeKalb soil. The experiments are arranged in four tiers of 50 plots each. From one to five tons of slag per acre are compared with an application of one ton per acre of pulverized limestone. The above data show the relative value of the two materials in the production of hay. Pounds per acre.

In the production of hay the heavier applications of slag have given yields comparable to that produced by one ton of limestone. In each case the four lime applications have given yields considerably in excess of the unlimed soil. The several applications of lime were applied in 1926. The above crops were harvested in 1928 except soy-bean hay which was produced in 1926.

A study of the above data serves to emphasize the importance of lime in our scheme of soil management as a means of paving the way for maximum return from the use of fertilizers. The several forms of basic lime when applied to the soil on the basis of equal units of lime oxides of similar fineness show the same value in crop production.

Orchards Need Lime

INABILITY to maintain a sufficient amount of organic matter in the soil, due to the failure of cover crops, is one reason why the vigor and productivity of many New Jersey orchards is impaired.

As a means of correcting this unfavorable condition, applications of lime are advised by Prof. A. J. Farley, New Jersey extension pomologist. The amount required can be determined by a soil test, which will be made without charge by county agricultural agents on request.

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NEW MILK LAW

MANY erroneous ideas are afloat about Pennsylvania's new milk law, which goes into effect September first of this year. An article on page 29 of this issue is intended to answer such questions about it as have come to us. If there are any other questions we shall try to answer them. The time to get acquainted with the provisions of a new law is before it is enforced.

FROM LIFE

A MAN who loved his horses so much that he would not sell them died recently, leaving over 120 head on his farm. All were in good condition, though some of them were past the age of usefulness. Among them were many mature animals which had never worn harness. Just here somebody is pretty sure to say something about this man's folly; but is any manifestation of love and kindness folly? Was it not his privilege to love his well-bred horses, and was it anybody's concern if he refused to sell them?

WAYS WITH BULLS

AN Illinois writer presents two ways of scaring an angry bull and asks somebody to try them. We are not going to publish them for fear somebody will try them and find himself in a hospital or an even quieter place. The trouble with all such ways of dealing with a bull is that the bull doesn't wait to consider them but attacks suddenly and swiftly. Thus far in our bloody record of gentle bulls the faithful dog has been the most efficient help. And sometimes even the dog has been too late.

THE DREAM OF STABILITY

A READER calls attention to the fact that markets not affected directly by legislation are unstable as are grain and cotton markets. Certainly they are and in the very nature of things must be. For there is no such thing as complete stability in any market, nor can there be any such thing as long as conditions which influence men's minds about prices are variable. No thinking person wants complete stability in markets. If that were possible it would be possible to perpetuate low prices, and no class of producers would welcome any such thing. What all of us should want, and what both produc-

ers and consumers are entitled to have, is a market which freely reflects actual conditions and expresses them in terms of prices. Interference with such markets, no matter how benevolent its intent, has always resulted in more harm than good. That is the world's commercial experience, without a single notable exception, and experience is worth more than theory in this as in other things.

POWER TO REGULATE

LAST week the United States Supreme Court ruled that, under the packers and stockyards law, the Secretary of Agriculture has the right to prescribe reasonable rates of commission for the sale of livestock at public stockyards. The decision was the result of a suit brought by all the members of the Omaha Livestock Exchange, an organization which fixes uniform commission changes and which virtually controls the sale of livestock at that point. In all such cases it is proper that some public authority should have power to review rates and determine their fairness. This point having been determined by the Supreme Court the future rate problems will be merely as to their reasonableness, and all interests have the right to challenge that at any time in court or out of it.

FIRST LIVESTOCK FUTURES

THE first organized future trading in livestock was done on March 1st, when the contract market for hogs was opened at the Chicago stockyards. Trading on the opening day was not large in volume and only one packer appeared on the buying side. Hogs of standard light grade (170@210 lbs.) sold for March delivery at \$11.25 per cwt.; for April at \$11.65 and for September at \$12. Hogs of standard heavy grade (260@310 lbs.) sold for April delivery at \$11.15@11.25 per cwt. There was no trading in standard medium grade hogs, 210@260 lbs. The future of this experiment will be observed with much interest. If it is successful such trading may be extended to other livestock which may be sold by grade, such as feeder lambs for example. There is already much future trading in lambs but it is all done privately.

OBSOLETE?

CARPENTERS limit the amount of work they do in a day; bricklayers limit the number of bricks they lay in a day; paper hangers stop work when they have put on a certain number of rolls. The same policy is manifest in other lines but not in all others. In addition to limiting daily service or production organized labor is demanding a five-day week. At the same time farmers are urged to cut down their production. The reason is essentially the same in all cases—expectation of better wages or higher prices, which amount to the same thing. What has become of the old doctrine that mankind cannot enjoy more wealth by producing less?

THE WHEAT FORECASTS

WE have constantly contended that price forecasting is not a proper function of the Department of Agriculture or of any other official agency. The wheat market furnishes us a glittering example of the way official forecasters miss it when they attempt to "figger out," from statistics and past records of all kinds, what the future will be. Last year the Department, through its Bureau of Agricultural Economics, made several estimates of the probable future price of wheat. These forecasts varied from month to month but every one of them was away higher than the market proved to be. In August, for in-

stance, the official economists expected the cost of British purchases would average 45c per bushel above the average for the preceding crop year. In October they still expected prices to average higher by 35@40c per bushel. Then the Federal Farm Board, evidently relying on the Department's economists, issued the declaration that wheat prices were too low and announced loan bases supposed to be materially below what the price would actually be. Subsequent events have shown that neither the Department's economists nor the Board knew anything about the course of future prices, which have gone far below the Board's loan basis and still farther below the experts' forecasts.

Fortunately for themselves most farmers did not heed the forecasts of the economists but sold their wheat. At least the bulk of the wheat in this country was out of the hands of producers before the severest of the slump. Such experiences as this, and others which might be cited, should foreshadow the end of official forecasting. Congress, at the behest of Southern interests, has already ended it so far as cotton is concerned. Like prohibition might well be extended to other commodities, in fact to all of them.

FEDERAL WHEAT HOLDINGS

LAST week's wheat market was marked by declines, by heavy buying by the Grain Corporation and by recoveries from the extreme low prices. Export business continues below par but it should improve with lower price levels here and the passing of European stocks into consumption. Chairman Legge announced, February 27, that the Federal Farm Board controlled about 25,000,000 bushels of wheat—10,000,000 bushels bought outright, 8,000,000 bushels by loans and 7,000,000 bushels contracts for future delivery. The head of the Federal Farm Board deserves credit for making such a statement, but the public should not have to depend on occasional expressions of this kind. Regular statements should be made of all transactions of this public agency, and all of its agencies, as to wheat, cotton or any other commodity in which business is done. The soundness of such a policy of public information is so clear that it should require no argument.

FOR BEAUTIFUL HOMES

WE have known persons to do all sorts of things for which they were sorry afterwards, but we have never known one to regret planting a tree, a shrub or a flower where it would add beauty to his home or give comfort to his family. There is something in foliage which invites, soothes and inspires. And there is the instinct in normal people to hide the harsh lines of buildings and cover unsightly places with the curves, masses and colors of growing things. Individuals, communities or towns which obey the impulse to dress up their homes add something to the sum total of human happiness and much to the amiable weakness of justifiable self-esteem. In fact the effect on morale is officially recognized by at least one national farm organization which links its yard and garden contest with farm relief on the ground of it being a force for better times in agriculture. This is the American Farm Bureau Federation, which in announcing such contest or campaign proclaims it "a progressive movement in the interest of both the family and the community . . . a most worthwhile service to rural America." While we do not see eye to eye with the Federation in all things we can see how it may benefit agriculture by encouraging more pride in farm homes, increase the value of property and meet a crying need for the elimination of unnecessary ugliness.

Pennsylvania Farm Comment

By MILES HORST

FROM our corn growing counties come reports indicating that the germination of the corn stored in many cribs will be very poor this spring due to the early freeze the corn had last November when it still ran high in moisture. There is no need of any alarm about the seed corn situation, however, for in most communities cribs of good germinating seed corn can be found. But this is no time to take chances on one's own crib without first giving the corn a real germination test.

At least 3,000 baby chicks will be shown at the first Pennsylvania Baby-Chick show to be staged at Honesdale, April 2 and 3, so we are informed by Livingston Blauvelt, the very active manager of this event. These chicks will be shown in various classes and subclasses and fine cash prizes and cups will be awarded to the winners. The show is open to state-wide competition and those desiring to make entries are requested to do so early.

TWO of our Pennsylvania wool pooling associations have recently incorporated as cooperative organizations under the Pennsylvania Cooperative Act of 1929. This is in line with good business, especially in such cases as these two associations where the annual business runs into the thousands of dollars. Incorporation removes the personal liability of those charged with the duty of handling the business of the association in case reverses are encountered.

THE Philadelphia Interstate Dairy Council during the months of February and March is carrying on an intensive newspaper advertising campaign which aims to emphasize to the people of Philadelphia the economy of using more whole milk in their daily diet. The campaign is timely for the number of unemployed people in that city is greater than it has been for some years. At the same time the supply of milk coming to the market is more than enough to take care of the present demand for whole milk.

A LANCASTER county tender tells us that several months ago he and some of his neighbors bought stock in a proposed hydro-electric plant to be erected in New Jersey from a salesman then operating in their community. Since buying this stock neither he nor his neighbors have been able to get in touch with the salesman or learn any more about the proposed plant.

We went to the Bureau of Securities in the Pennsylvania Banking Department at Harrisburg and there learned that this salesman was a rascal, that he was run out of New Jersey where he first started to sell this stock, that he had been selling the stock in Pennsylvania without a license to do so, and that he had now again disappeared. We were told that no work on the plant had yet been done and probably never would be.

The experience of these men should drive home the lesson that it is better to investigate before buying securities than afterward. Most of our local bankers have information on hand or can easily get it concerning most securities on the market and as a rule are a safe place to go for guidance.

FROM State College comes the announcement that the annual young farmers' week, held heretofore at the College in June, will this year be held in August and instead of having the club members and vocational students meeting at the same time, the week of August 13 to 16 will be devoted to club activities and the following week to vocational work.

This change of time should increase the attendance at these popular gatherings of young farm folks. June is a busy time on the farm for boys since cultivation of spring crops in then in full swing and haying time about to begin. By dividing the two groups it is also possible to double the number that can be entertained at the College.

Cordie Allen of Susquehanna county goes the honor of having the cow producing the greatest quantity of milk during January among the 29,316 cows enrolled in the eighty cow testing associations active in the state. Her month's production was 2,851 pounds of milk. A registered Holstein owned by J. H. Long of Columbia county topped the list in butterfat production with 102.7 pounds to her monthly credit.

OVER in Indiana county, Pa., 1,600 coal miners' families have entered a contest to see which among them can produce the best garden this spring as well as make the greatest improvement in their home surroundings. They are receiving assistance from the college extension service and fine prizes await the winners. They are bringing the dream of a Pennsylvania Beautiful one step closer to reality.

PENNSYLVANIA BROWN SWISS BREEDERS

WHO ESTABLISHED A COLLEGE HERD. 1929.

Members shown include: J.M. DeLozier, K.S. Bashaw, H.L. Grazier, F.C. Zimmerman, S.J. Houm, R.F. Lohr, A.O. Lape, G.F. Bown, Miss L. Wohlwend, and others.

ON February 25th sixty-five members of the Indiana County Sheep and Wool Growers Association were present for the annual meeting. The election of officers resulted as follows: President, W. R. Thomas, Indiana, Pa., R. 6; vice-president, H. M. Brown, Indiana, Pa., R. 5; sec'y-treas., Clayton Miller, Creekside, Pa.

It was decided to hold another pure-bred ram sale about the latter part of August. W. B. Connell, extension specialist in sheep and wool at State College, addressed the meeting on "modern sheep practices." He also discussed the market situation on wool and the market lamb situation. He stated that enough feed of the right kinds is the first essential for farmers in this state to consider in successful sheep raising.

County Agent Warner spoke on the importance of pasture improvement, advocating the improvement of permanent pastures by liming, fertilizing and seeding. He recommended that soil samples be brought to the county agent's office to be tested for lime requirement.

THE annual meeting of Allegheny County Beekeepers' Association was held in Pittsburgh, February 27th. Report was made of the activities of the Association during the year. Mr. George C. Wilson, Secretary of Allegheny County Agricultural Extension Association, gave an interesting talk on the value of the bees as pollinators of fruit and vegetable bloom.

Mr. E. J. Anderson, extension apiarist of State College, gave an instructive address on bee keeping throughout the state, supplemented by lantern slides. The following officers were elected for the ensuing year: President, J. S. Fleck; first vice-president, A. T. Kell; second vice-president, B. F. Forsythe; secretary-treasurer, O. J. Wohleber.

D. M. Landis, Mrs. A. H. Risser, Clarence A. Reist and Charles F. Preston. These five with one delegate from each farm bureau local in the county and the president of the county society of farm women, who is Mrs. Martin A. Moore, will serve as the board of directors of the organization during the coming year.

One of the activities sponsored by the Lancaster County Farm Bureau is the buying of farmers' supplies through the commodity division of the Bureau. Last year purchases made by farmers through it totaled \$70,000.

During the coming year the organization will push the building of improved "farm to market roads" and will pay considerable attention to present inequalities in taxation.

Gray Silver, formerly representative of the National Farm Bureau Federation at Washington, D. C., addressed the meeting in the afternoon. He gave the history of farm relief legislation of this country, explained the duties and the functioning of the Federal Farm Board and wound up with the conclusion that the Federal Farm Board is not only tackling a difficult task but that its workings are sound and deserve the support of farmers everywhere.

A REFLECTION of ten years of farm progress in Bedford county was the keynote of the tenth annual meeting of that county's Agricultural Extension Association held at Bedford, Feb. 20.

To picture this progress graphically, County Agent Mollenauer prepared a large map of the county on which 14 distinct communities were outlined and the work accomplished in each was enumerated. It was a surprise even to the 200 farmers in attendance themselves to see how far the influence of extension work in their county has gone in a decade.

One of the high spots in this progress was the campaign to stamp out bovine tuberculosis. Bedford county today as a result of the campaign is a modified accredited area.

The dairy cattle of the county have not only been freed of disease, but in type and production much improved. In this improvement two active Jersey and one active Holstein Bull Association have played an important part.

Last year the county had 3 calf clubs with 21 members; 102 potato growers in the county followed out the regular potato spray service and 94 orchardists adopted the fruit spray service.

At noon all those in attendance joined at a luncheon served at the Hotel Pennsylvania. Addresses by the Hon. John M. Reynolds and W. R. Gordon followed.

TWO plant pest quarantines in force in this state last year were removed on March 4th by the Pennsylvania Department of Agriculture. It was found that the Asiatic beetle and the Asiatic garden beetle are no longer of serious consequence.

DUE to illness in our family last week it fell to my lot to wash the dishes on several occasions. We have the regular group of lights in the center of the kitchen but no light in the sink. Therefore it was necessary for me to hold each dish to the light to see whether it was clean with a consequent loss of time. I am now "rooting" for a light in the sink, as my wife has done for some time.

Should I wire a house today as thousands of farmers are now doing I would give particular attention to having the electric lights so placed in the home that all necessary operations in it would not have to be done in shadows. To do this does not necessarily require more lights than are usually provided but it does require more thoughtful care in the placing of them.

Boys May Earn as They Learn Better Ways to Farm

By C. A. MAY

THE farmer is no longer thought of as a "hay-seed" and the work of the farm is not a degrading task but an honorable occupation. "It is an honor to be called a farmer," is a familiar saying. The farming vocation has been elevated, and one of the reasons this is so is because the farmer boy is being taught the latest practices and improvements in the vocation of farming.

Perhaps the greatest service that the agriculture teacher renders is the direction of the supervised practice usually called projects. Since the plan of the project is the boy's plan and not the teacher's or the parent's, the boy has a problem of vital interest. If a boy living on a dairy farm plans to devote his life to dairy work, then he should carry the dairy project and have the advantage of supervised practice in his vocation. At the same time the boy is earning while learning.

According to the Federal Board Bulletin, number 134, boys earned the amount of \$5,376,423.01 for completed project work reported in the United States for the year reported. The average project income of the 49,223 boys amounted to \$109.22 per boy. The per capita cost of instruction based on the agriculture teacher's salary averaged \$74.87 per boy.

A survey made in Missouri shows that, in addition to investment in crops, livestock, machinery, fertilizer and land, 546 boys out of a total 3,081 boys studying agriculture have \$37,718.57 on deposit in checking accounts, 280 boys have \$48,178.65 in saving accounts, and 167 boys have \$145,806.05 in stocks or bonds.

A boy in Massachusetts started with a project of three-quarters of an acre of potatoes, earning \$212.48 his first year. The next year he had a cow as a project and then increased the number to five cows. He borrowed \$2,500 from his father and paid back \$1,100 within one year besides paying all the costs of the project and his living expenses. A Wyoming boy made \$445.25 net profit from two acres of certified potato seed and won 25 first prizes, 11 second prizes, three third prizes and two silver loving cups at fairs.

So vital and practical is the knowledge and experience the boy gains that he never forgets it but applies it in his future work.

Experience with Potatoes

Harry Davis of Preston county, West Virginia, feels that his experience was valuable of which he says, "My potato enterprise in the Vo-Ag club was conducted in cooperation with the Agricultural Experiment Station of West Virginia University to show the value of spraying potatoes. For the land to grow the potatoes I selected one acre of clover sod and plowed it on March 21. One week before planting I harrowed the land three times, disked it once and drilled 950 pounds of superphosphate on the seed bed. At planting time I added 1,000 pounds of a mixture of equal parts of potash fertilizer and sulphate of ammonia.

"I began to spray the potatoes when the plants were about three inches high to control fleas. Arsenate of lead was used for this spray. After seven days I began the regular spray schedule and continued spraying at seven-day intervals through the summer making a total of nine sprays. Five rows in the field were not sprayed, four rows were sprayed with arsenate of lead and Bordeaux mixture.

"The rows sprayed with Bordeaux and arsenate of lead remained green and thrifty about four weeks after the unsprayed rows had completely died down. The rows sprayed with arsenate of lead remained green about



Dana Markley, student in a West Virginia high school, who started with a project of 500 baby chicks and raised most of them to maturity.

one week longer than did the unsprayed rows. The tubers from the rows sprayed with arsenate of lead were only slightly larger. The tubers from the rows completely sprayed were large, uniform and healthy.

"The yields for the various rows were as follows: The rows sprayed with arsenate of lead and Bordeaux mixture produced 396 bushels per acre, the rows sprayed with arsenate alone produced 264 bushels per acre and the unsprayed rows produced 231 bushels per acre.

"My total cost of producing the acre was \$119.50. The total yield for the acre, including the five unsprayed rows and the four rows sprayed with arsenate of lead, was 350 bushels and the cost of production was thirty-four cents per bushel."

It is the diffusion of knowledge of scientific methods that has increased the yields of farms, and the agriculture teacher who has direct contact with farm boys and girls as well as farmers is responsible for the teaching of the most up-to-date methods.

About Asparagus

THERE are many grains and vegetables that mankind has eaten and improved for ages. Some have been changed to such a degree that we do not know the original stock they sprang from, for instance wheat and maize.

Potatoes or tomatoes, although they have been vastly improved, we can yet find growing wild in their original home. But asparagus seems not to have changed much. We find it now in almost the same form it appeared more than 2,000 years ago. The young sprouts, when they first break the ground, have quite a pleasant taste, even when eaten raw. Earthy, you might call it, and since they come early in the spring, it must always have been a very valuable tonic.

The young generation now growing up can hardly imagine the hunger we old folks used to feel after living on salt meat and potatoes through five or six hard winter months.

What an unbalanced ration—with the green vegetables left out—can do to a man my readers will find if they open their Bible at the fourth chapter of Daniel and read the verses from the 29th to the



Agriculture teacher demonstrating to student the proper method of holding chickens in order to determine their approximate weight.

end. If the great King Nebuchadnezzar had only been a subscriber to the Pennsylvania Farmer they would no doubt have sent him a schedule with vitamins and proteins in the right proportions. He must have had an impaired digestion long before his final breakdown occurred or he would never have dreamed such awful stuff as he did night after night.

If he had had only sense enough to tell his cook to have a bunch of asparagus boiled for supper, with a nice cream dressing, he would have slept like a baby.

But my proclivity has carried me away from my topic. I only wanted to show how necessary the vitamins contained in asparagus are to the human body. It has other properties besides vitamins.

I have raised asparagus for over 40 years and believe I could tell my readers a few things they don't know about the cultivation of it, but I would like to tell something of its history and qualities, that I always thought interesting.

I said before that King Nebuchadnezzar ought to have ordered some for his supper, but I am not sure that he would have found it on his bill of fare. The soil of Chaldea is pretty dry and arid. It is a curious fact that in all the early history we have of asparagus it always is found near the seashore. It will grow in salt meadows and, where the ground is porous enough, can even survive an occasional inundation. This gave rise to the belief that it required salt to develop well.

Twenty years ago farmers broadcasted from 500 to 1,000 pounds of salt per acre. When commercial fertilizers came into general use most growers saw that it was not worth while to spend their money on salt when a good fertilizer gave better results.

In Ancient History

As far as I know asparagus is first mentioned in history about the time of Julius Caesar. Plutarch tells us in his "Lives of Great Men" that Julius Caesar had good table manners. He showed it in little things. When he was invited to dinner, a dish of asparagus was put on the table, dressed like many Italian dishes are to this day with olive oil. It happened that this oil had gone slightly rancid—a thing that is not quite uncommon even now in Italy or southern France.

When all the other guests pushed their plates away, Caesar never batted an eye, but ate what was put before him to the last spear. I hope it didn't give him the heartburn, but that unfortunately Plutarch does not mention.

About 400 years later, in the reign of Diocletian, the Roman empire seems to have passed through some trust-busting time. The wholesale provision dealers must have squeezed their customers till they howled. Diocletian—he was a gentleman farmer himself and seems to have taken a pride on broccoli and cabbage—thought he would like to take a hand himself at price fixing. We don't exactly know whether he meant it as a farm relief, for he fixed wages too. A carpenter, for instance, was to be paid 40 cents a day and his board. But asparagus is quoted at 20 cents a bunch, consisting of either 50 wild or 25 cultivated spears.

This edict, discovered more than 100 years ago, is one of the most valuable. (Continued on Page 13.)

DADDY was not afraid of work, but of himself. Give him a job and he would perform it skillfully and in full measure, but he lacked the courage and optimism of youth when it came to striking out for himself, and the idea of risking anything caught him like a stitch in the side. Finally he gave in, less for his own sake than for Nancy's and Toots'. He mustn't, he decided, let his lack of pluck and vision interfere with the young folks' chance.

Toots saw that all the planning would have to come from himself and this rather pleased him than otherwise. He found his wits rising to the demands of a real thinking job. There were a dozen and one things to plan out, all knocking at his brain at once. More roomy quarters had to be provided for the guests, and he and Daddy drew plans for the remodeling of the ell. Daddy was an expert carpenter and Toots was handy with tools, and between them they could furnish the labor. That left the lumber and other building materials; also two sailing skiffs, a raft of "blocks" or wooden decoys, furnishings for the new rooms and a few other necessities. Mere decorative details could wait, though Toots believed they were important. Also there was the vital matter of advertising.

All these things meant money. The more Toots went over them the more he realized how meager was their combined capital, and Daddy, busy with the repairs, would be earning nothing. When this had soaked into Toots' mind he put on his best coat and called on Jepson at the store.

Things were indeed being run in a hand-to-mouth way there. Jepson had got well past the brisk stage of life. He was well-off and had quit active work years before, and resented having to come out of his comfortable retirement. Such a profitable investment as the store could not be allowed to run down, however. Jepson was trying to keep it going, but his knees were stiff and his temper rather short. The negro youth he had hired as an assistant had a positive talent for putting up an order wrong.

Jepson knew all about Toots' experience at the store and welcomed him with an eagerness he tried to conceal. "Yes, you can have a job here," he said. "At the same salary Tigert paid you."

"I wouldn't take it at that," replied Toots. "If I'm to run the store I'll want double that, and an assistant that knows something."

Jepson endeavored to haggle. "That's a lot for a young fellow," he said. "At your age I wasn't earning anything like so much."

"It didn't cost you half so much to live," said Toots. "That's my figure anyway, Mr. Jepson. You can take it or leave it."

THE proprietor took it, secretly delighted at his own escape from drudgery and well pleased that he could leave the store in such trustworthy hands; but he was disturbed when Toots mentioned the assistant he wanted.

"A woman!" he exclaimed. "Why, man alive, that wouldn't do at all. 'Taint the thing. A woman's place's at home."

He yielded, however, before Toots' insistence as he had in the matter of the salary, and Toots departed to consult with Mrs. Nesta Ham. The widow's reception of his proposition removed any doubt he had had of her acceptance. She tossed the dress she had been working on upon a chair and shook a needle-roughened finger at it as she rose.

"There, you're done and I hope you're the last," she exclaimed. "Sewing may be genteel—my sister thinks so—but I call it monotonous, deadening, treadmill work. Thank you for remembering what I said that day. You don't know how glad I am to accept. You couldn't know unless you had spent years shut up at home sewing, sewing, sewing, hardly ever sticking your nose out into the air and seeing almost nobody."

When he left Toots felt that he had done a good thing for Mrs. Ham as well as himself. On his way back to town he met Rose, who was evidently bound for the same house that he, Toots, had just visited. The big man seemed a little embarrassed at first, his conscience not being quite clear for the abrupt way in which he had terminated their contract. He soon recovered his usual air of self-satisfaction when Toots made no reference to the matter.

"What you goin' to do now?" he asked. Toots mentioned the scheme he and Daddy Simons had embarked upon. Somewhat to his surprise Rose unhesitatingly approved of it.

"You know," he said, "I've thought of that myself often." He was quite sincere in believing he had. "And I think you're the man to run it, but you got to organize right. It takes brains to organize, an' money."

"I don't know about the brains," said Toots. "I've

A Thinking Job

By Fisher Ames

Copyright, 1929, by Capper-Harman-Stocum Company

got some money and a steady job that will bring in something to turn into the business."

"That's good. Goin' right at it hard, ain't you. But advertising's what gets trade. You've got to advertise in a whole lot of newspapers an' keep it up. It'll eat up money like a horse does oats."

"I reckon it would and it wouldn't reach the trade I want either," said Toots. "I've written to an agency in Philadelphia for a list of sporting magazines. The men who read 'em are the ones who like to fish and shoot and we can reach 'em that way quicker and surer, too, than by advertising in the newspapers."

Rose eyed him with new respect. "Look here," he said abruptly. "What'd you say if I offered to loan you a couple—well, yes, a couple of hundred?"

"Pay it back when you're on your feet."

"Supposing we failed," said Toots. "But I'm gamblin' you won't. Sometimes you're a little queer, but your queerness don't run that way I guess. Besides, I'd be back of it then. I'd blow your horn for you every place I went."

"You're better than your money any day," said Toots, eager to clinch this suggestion. "I'm obliged for the offer, Mr. Rose, but we don't want to start out by borrowing. If you'll speak for us, we'll give you a commission on every one you send. Honestly, I wouldn't like to take your money, and you not here to say how we should spend it."

Rose appeared content with this arrangement. "I'll blow your horn up and down this coast a-plenty," he reiterated as they parted.

Daddy was taking inside measurements of the ell when Toots got back. He had pulled down some of the old beams on the side where they planned to build an extension and Toots sat on the pile while he related the gist of his interviews with Jepson and Rose. It was good news to Daddy that one of



The Cheerful Plowman

BURNING JUNK

THERE was a time when muss and junk, old litter, useless, needless, punk, piled up around my place. I kept this thing and that thing, too, "I need that thing, indeed I do!" I said with smiling face.

I kept old letters by the sea, from mottled cousins and their dad, from scores of weak old aunts, from uncles asking for a lift, from second cousins, fourth and fifth, from neighbors moved to France. I kept old checks and crippled bills, old gray receipts penned out with quills, old recipes and deeds, old funny papers dull and gray, the kind that mummies throw away, the kind nobody needs.

Out in the barn I kept old straps, old buckles, martingales and snaps, old bits of leather tugs, old bottles which in early days held liniments in blues and grays, sure death to bots and bugs. I kept old cans and broken wheels, old splints from ancient binder reels, old gunny-sacks and such, old strips of canvas full of holes, old splinters torn from wagon poles, an aged rabbit hutch.

I never put a thing away without the thought, "There'll come a day when that will serve an end; there'll come a day when I shall need that piece of rag, that splintered reed, some day 'twill be a friend. That recipe will serve me well, as will the hammer from this bell, when need for it appears; some day I'll read this spiel again about that tribe of early men, I'll lay these by, my dears."

But, never did I lay aside a paper, putty-pail, or hide that I sought out again. In fact I always plumb forgot just where, and when, tommy-rot, just where, and why, and when.

One day I had a dandy fire, a blaze that mounted high and higher, a blaze to scare the birds, and there I burned nine tons of trash, old papers, leather, tin and crash, in bevels, flocks and herds.

J. E. T.

them would be earning a salary, and he was also much encouraged by Rose's offer of a loan.

"When a tight-wad like him is willin' to gamble two hundred on us we-all can reckon we've got a right smart project," he grinned.

Toots agreed, looking idly at the names cut in the old beams. Suddenly his eye gleamed and he went down on his knees, blowing the dust from one of the inscriptions.

"Listen to this, Daddy," he exclaimed. His finger followed the words deeply cut in the wood as he read aloud: "Fellow sportsmen all!

This place scores a bullseye. Frank Forester, Dec. 10, 1855." Now what do you know about that?

"One of the gunners my father used to put up, I reckon," said Daddy, his attention focused on his measuring tape. "Eh? What's the matter with you?"

Toots had given a whoop that made the room ring. He rose and seized a fine-toothed saw.

"Here's our trade-mark right here," he said with one of his infrequent laughs. "Don't you know who Frank Forester was? Well, I do. I've got some of his books—Field Sports of the United States, Fish and Fishing—and two or three more. Colonel Jessey called him the Nimrod of America. He said that as long as there was a rod or a gun used in this country Frank Forester's name would be remembered. See the point, Daddy? Here's our advertisement all written out for us and signed, by the greatest sportsman this country ever knew."

Daddy stopped and sat down. "That so?" he queried, trying to see the significance of the thing as Toots saw it. "Well, well, see what it is to be a readin' man, now."

"We'll call this place the Bullseye," said Toots. "It's catchy." That evening after much labor he ground out the following advertisement:

The Bullseye.

The House That Made A Hit with

Frank Forester

America's Greatest Sportsman.

Author of Field Sports of America,

Fish and Fishing, etc., etc.

Fish and Game as Plentiful as Ever

Board and Lodging Better.

"There. We'll trim that up and send it to those magazines, when we get the list," he said. "We'll frame that piece of beam and hang it over the mantelpiece."

Nancy, slim and straight, with eyebrows like strips of black velvet against her clear white skin, smiled over the last line of the ad.

"You put it up to me there, don't you?" she said. "Makes me feel like I was a third partner."

"I always reckoned you as half," retorted Toots. "Daddy and I make up the other."

"Get along with you," laughed Nancy.

"He's kissed the Blarney stone as well as read books," said Daddy. "Ain't I told you, Nancy, that he acts the same as we-all, but he don't talk jest like we-all. He keeps a-pickin' up learnin'."

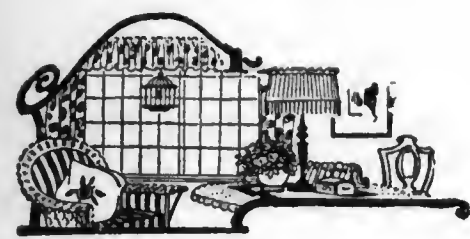
"He keeps picking up shells, anyway," retorted Nancy teasingly. "He's got a big box of the trifling things in his room. Don't you think he's too old for such playthings, Daddy?"

His days were busy ones now. The list of sporting magazines arrived and The Bullseye ad. was sent off to a picked number of them. Before he went to work at the store Toots ran down to see Mark Crumb and through him met some of the other tongs. A certain number of them would, he knew, resent the Tigert affair and the subsequent drying up of the source of the Red Mill whiskey, but that couldn't be helped. Besides, Carbury was the most convenient trading point for them and they probably would have to come around in time. Toots' object in seeing the tongs was to find out about the fleet's trade, what they would or would not take.

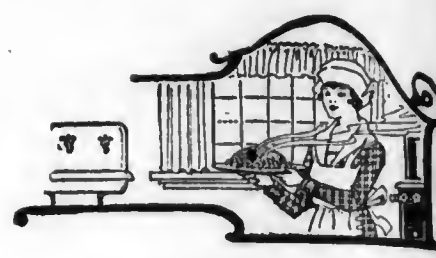
Subsequently he called on Mr. Jepson, with the proposition that they install a coffee urn at the store. He displayed a catalog—his pockets were full of them nowadays—quoting sizes and prices. "It will help to keep the fleet trade," he explained. "They can't get any more hooch of us, but a cup of good coffee—it's got to be good, too—will ease 'em over the bump. They'll appreciate it, coming in after a long sail. Our other customers will, too. People will drop in for it—and then they'll buy. We won't lose anything either if we add a doughnut with each cup, charging enough to cover expenses."

Jepson was old-fashioned and couldn't see at first the logic of mixing business and pleasure, as one might call it; but having already agreed to a woman assistant he felt that it didn't much matter what other new-fangled notions he might allow to creep into the store. He was, moreover, impressed by the intelligent interest Toots took in the business.

(To be continued.)



The Farm Home



In Women's Hands

By GERTRUDE S. STEWART

MRS. G. THOMAS POWELL, of New York Federation of Home Bureaus, represented "the land of the free, and the home of the brave," in the recent World Conference of Rural Women. This meeting was held in London, and delegates from forty-three countries answered the roll call. Leaders among rural women from so many different states were there and discussions prove that women's work, ideals, inspiration and enthusiasm, are the same—the world over.

When the Lord Mayor of London gave his welcome address, these soul-stirring words were his climax—"The destinies of all countries lie in the hands of women."

You will be interested in the general summing up of Mrs. Powell's report on the common interests of rural women. They are: To drive out loneliness by contacts; to make the country woman articulate; to get inspiration; to get a better standard of living; to have conferences and federations.

Another big interest is in the training of country girls, of leaders, of better rural teachers. The educational interests are to make better homemakers through study centers where home-making is properly taught.

The economic interests, too, are the same in forty-three countries. They all seek improved production, better marketing, handicrafts, home interests, better developments of the country's resources, good roads, and to stem the drift from country to town.

What an inspiration it must have been to mingle for four days with delegates from Canada, Australia, Norway, New Zealand, England, Roumania, Ireland, Germany and all the others. The reports of Canada and Denmark are of tremendous import, and they may help our readers in various club activities.

Our neighbor, Canada, sees so much value in the conferences of rural women that the Canadian government pays the traveling expenses of women meeting in conference, the results of the meeting being given to the government. Canada points to the first self-organized rural societies for women.

Country folks learn so much from Denmark. How about this? Every village in that splendid little country reported an institute where culture and interest abound. In these meetings men and women join together—the men being leaders.

Mrs. Powell says the slogan "of the people, by the people, and for the people" was repeated many times in languages to which Abraham Lincoln was a total stranger.

Serve Delicious Souffles

WHY isn't the family treated more often to the delicate and delicious dish which the French appropriately call a "souffle"—literally, "something blown," because it is so light and fluffy? One reason is that at some seasons of the year, eggs are scarce and high, and a souffle depends for its special consistency on three to five stiffly-beaten egg whites. In the spring, however, eggs are plentiful and cheap. Another explanation perhaps is the idea held by many women that souffles are hard to make—In fact, that only experienced chefs should attempt them; that in amateur hands they will fall as soon as they are baked and so lose the very quality for which they are liked.

It's all in the knowing how. Long, slow cooking is one of the secrets of making a perfect souffle. An oven thermometer is a help in maintaining an even low temperature. The very moderate oven heat of 300 degrees F.

expands the air bubbles in the egg whites and sets the light mixture throughout without toughening it. When baked at very moderate heat for an hour or more a souffle which is served immediately will fall but slightly. For a substantial souffle either a thick white sauce or bread crumbs or both will act as binder for the ingredients. A souffle that contains bread crumbs will hold up better than one made with white sauce alone.

Souffles made with cheese, vegetable pulp, ground meat, or flaked fish, are attractive for the main dish of the meal. Sweet souffles are used for dessert. Below is a recipe for one of each kind from the Bureau of Home Economics of the U. S. Department of Agriculture.

Cheese souffle.—Four eggs, one and one-half cups milk, one cup fine dry bread crumbs, one tablespoon butter, one-half pound American cheese, three-fourths teaspoon salt, one-eighth teaspoon paprika, three drops tabasco sauce.

Heat the milk, bread crumbs, and butter in a double boiler. Shave the cheese into thin slices, add it to the hot mixture, and stir until the cheese has melted. Add this mixture to the well-beaten egg-yolks. Season to taste with paprika and tabasco. Fold the hot mixture into the stiffly-beaten egg whites containing the salt, pour into a buttered dish, and bake in a very moderate oven (300 degrees F.) for one hour, or until set in the center. Serve immediately.

Chocolate souffle.—Five eggs, two tablespoons flour, two tablespoons butter, three-fourths cup milk, one and one-half squares unsweetened chocolate, one-half cup fine dry bread crumbs, one-half cup sugar, one teaspoon vanilla, one-fourth teaspoon salt.

Melt the butter, blend the flour with it, add the milk, and cook until thickened, stirring constantly. Melt the chocolate over steam, and add to the

white sauce, together with the bread crumbs and the sugar. Add the hot mixture to the well-beaten egg yolks and beat thoroughly. Add the vanilla. Fold the hot mixture into the stiffly-beaten egg whites containing the salt. Bake in a buttered dish in a very moderate oven (300 degrees F.) for one and one-fourth hours, or until the mixture is well set in the center. Serve hot with hard sauce.

Eat More Butter

IT is the best of all foods. It contains the sunshine vitamin-A so vital to the health, happiness and energy of human beings, the growth of babies and the young—more than any other food. In ancient times butter was used as a beautifier. It is now the means of building your health from within. It creates and sustains radiant health and vitality.

The use of butter makes all foods better. It attracts and satisfies the appetite.

"I love children. They do not prattle of yesterday—their interests are all of today and the tomorrow—I love children." Richard Mansfield.



Try a souffle for a change.

What Is Gain?

By HEPSY NEFF

IF we have among our readers any who are not interested in getting some real gain from every hour of time and material they use they will be disappointed in this article. Successful people are those whose daily program is built around the idea of something to be gained by every penny, every hour and every ounce of energy used.

With spring at hand we are eager to get out of doors but too often we find ourselves weary and spent too early in the day. There is nothing new in finding the body machinery running a bit unevenly after three months of low temperatures and little sunshine. Fortunate the family who went into winter with a good supply of vegetables and fruits, especially apples enough to keep a basket within reach daily.

If this has been done the housemother, worn with work by lamplight as well as daylight, may claim extra hours for outdoor work unhindered by demands for elaborate salads with apples as the basis. Why should she make her good canned fruits into pies when the great need of the time is vitamins? Instead, she may, with a clear conscience, serve plenty of raw cabbage, sauerkraut and onions as well as these same vegetables lightly cooked, remembering the effect of too much heat on the precious vitamins.

With plenty of good milk she may vary her program by cream soups, with or without tomato and minced onion added; or grind her carrots as well as a generous amount of onions and cook together lightly; bake her potatoes in clean skins and offer this alkaline vegetable at its best.

It may be worth while for busy people to be often reminded of these new food elements to help us decide that it is as much a part of wisdom to make sure of a safe supply of vitamins as it is to make sure of a safe supply of lubricating oil in the family car. Cabbage is No. 1, spinach and tomatoes No. 2, carrots, lettuce and dandelion greens No. 3, then whole milk and our fresh young (not half ripe) peas and beans next, with all fresh summer vegetables at our command. If farm folks cannot build health nobody can.

The Old Home Nest

THERE are four apple trees near our house so old that one might well feel justified in removing them. But birds come back to the old nesting-place and our trees attract robins, bluebirds, golden robins and yellow-hammers. So we keep the trees. Each spring they are cleared of small dead branches. One badly split, decayed trunk is covered with vines planted at its base.

And how richly rewarded we are when the birds return each spring! During last winter's gales a hollow limb was carried away. It had been used for several seasons by a pair of yellow-hammers as a nesting-place. Such tapping and examining as went on when the pair arrived last spring. At last a spot was chosen and work begun. Soon an opening was made and another old limb was hollowed out to their satisfaction.

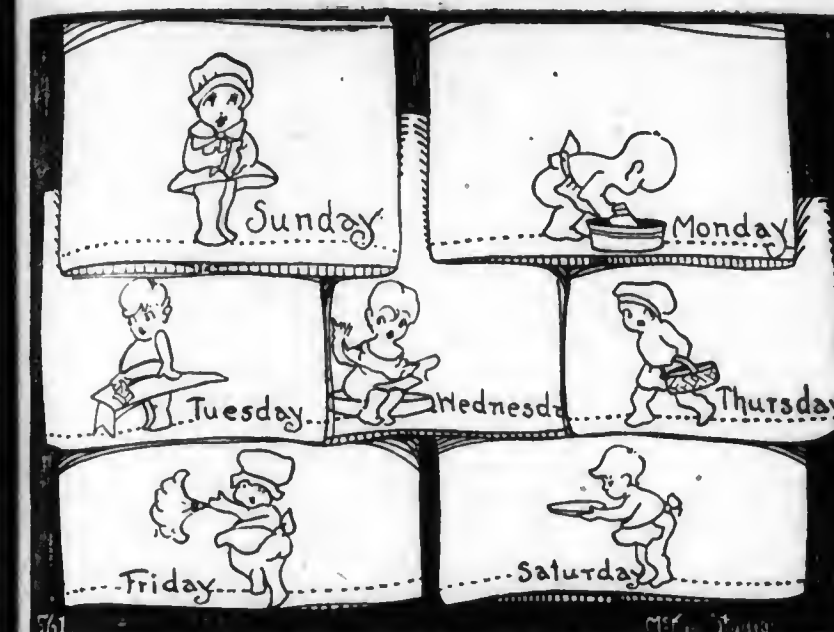
Yellow-hammers are lovers of "antiques." The robins and bluebirds would no doubt find other suitable nesting-places nearby if the old trees were gone but the "hammers" would be bereft indeed. Their busy tappings, close to our window, the gay red on their heads and the flash of gold "lining" when they spread their wings are a big reward for enduring the old trees.

As I write a bluebird sits on a branch so near my window that it seems as if I might almost touch him if the window were open. Now his mate has fluttered out to tell him something and they have both returned to an intriguing hole in an old limb. In fact, we feel that our old trees are paying us a big interest by the diversified bird life which they attract and call back year after year.

Alice M. Ashton.

Cottage cheese, valuable for its high protein and calcium content, makes an excellent filler for sandwiches if moistened with boiled dressing, cream or lemon juice.

Seven Day Tea Towels



20 Cents for Set No. 561

FOR the hope chest, shower, bride or bazaar, as well as for us who have long since qualified as homekeepers, a Tuesday tea towel for Tuesday, and a Sunday one for Sunday, is most encouraging. Outline stitch, two strands of any favorite hue, quickly transforms the stamped material into mighty clever towels, each with a chubby baby, struggling with the task of the day. Pattern No. 561 at 20 cents supplies the set of seven designs in wax transfer form to use on anything from linen crash to sugar sacks.

We can also furnish this set of designs, seven of them stamped on soft, part linen toweling, ready to embroider and use. This is No. 562, and is \$1.40 complete, postpaid. Three skeins of embroidery floss in colors to match the border are ten cents extra.

Address Embroidery Department, Pennsylvania Farmer, 7301 Penn Ave., Pittsburgh, Pa.

The Magic Alarm Clock

"FREDDIE, get up," called Mrs. Williams, her voice rising shrilly to the "up." "I can't get the boy of bed," she wailed desperately, as she hastily carried in her husband's

trousers with cold water," called Mrs. Williams, who was never a very happy frame or mind until her breakfast.

Mrs. Williams looked irresolute for a minute, then proceeded to the kitchen with firm steps. Shortly after, she came from Freddie's room, and the racket in the rear of the apartment announced the fact that Freddie had arisen and was making a scramble to get ready for school time.

Mrs. Williams sang about her work day, fondly believing that Freddie "cured." But the next morning young hopeful seemed to have forgotten his recent unpleasant experience and repeated calls and nudges brought no response.

"House him again," volunteered his mother. But Mrs. Williams did not. A repetition of yesterday's weariness. So she coaxed and threatened Freddie in "the same old way," and he finally tumbled out of bed and into his clothes.

That afternoon there was a parents' meeting at Freddie's school. A lecture on "Habit Formation" and questions. After listening to questions such as, "How can I make Jack more tidy?" and "What can I do to make the best cure for thumb-sucking?" Mrs. Williams raised a timid voice. "How can I make my boy get up in the morning?"

The lecturer asked a few questions and Freddie then calmly said, "I'm not getting up in the morning is Freddie's job, not yours. Put the responsibility where it belongs. I feel quite sure your boy will be able to meet it. You expect him to get himself off to school from now on, without any assistance from you? Try it."

After the meeting Mrs. Williams purchased an alarm clock. She introduced it to Freddie that evening. Next morning she listened to its peal with bated breath. Freddie was right out of bed! Mrs. Williams busied herself in the kitchen and left him entirely to his own de-

vices. Soon he appeared, face shining, hair slicked down, shoes clean. Mrs. Williams served his breakfast. After breakfast, he donned his coat, just like his father and strode manfully into the kitchen to give his mother a "good-bye" kiss.

That morning Mrs. Williams did some hard thinking. "That's the whole trouble," she said to herself. "I've been doing everything for that boy. I haven't given him a chance to shoulder things himself. Why, of course he'd rather mind himself than mind me. I must change." And she did. But she still insists that the alarm clock "did it." She says, "He's as good as gold now and I just couldn't do anything with him before."—Irma Morris, Nat'l Kindergarten Ass'n.

Fresh Carrots in March

I WANT to tell you about our delicious carrots. Last fall we stored them in the cellar and they have kept wonderfully. We merely put them in strong wooden boxes and covered them with sand. Then usually every Monday I gave them a generous sprinkling of clear cold water. Over the top of the box is spread a burlap bag. Pretty nice to have fresh carrots in March, and these are firm and without a wrinkle. That elusive vitamin A has been ever present on our table, for we all like carrots. Would you like some of our favorite recipes?

Carrot-cabbage salad.—Grind equal parts of carrots and cabbage. Salt to taste. Mix lightly with a dressing made of whipped cream slightly sweetened, adding just enough vinegar to make it slightly tart. A blend of half salad dressing and the whipped cream is also nice.

Carrot delight.—Grind enough carrots to make one pint. Add the juice and rind of one lemon. Pour over the mixture one and three-fourths cups sugar, and let stand all night. Next noon or evening, pile the mixture into sherbet glasses, top with whipped cream and enjoy a unique dessert.

Or if your jelly is running low put this same over-night blend on the stove and boil slowly until the carrots are tender and the mass is clear. Pour into your empty jelly glasses and serve with toast as you do any marmalade.

Sue Wyant.

This Guarantee

Guarantee and Ten Year Service Bond

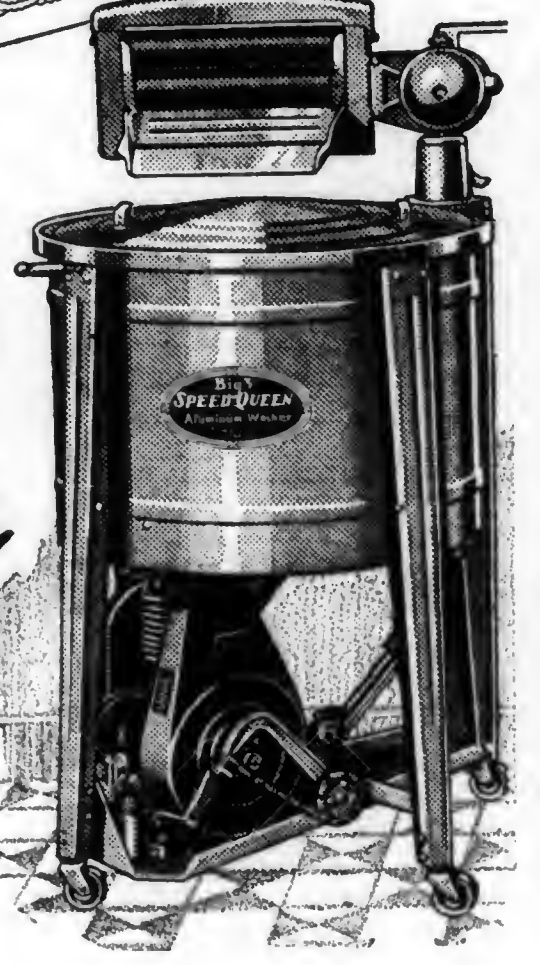
We hereby guarantee this Speed Queen Washer to be free from defective material and workmanship, and we agree to replace without charge any part or parts proving defective. Simply return the parts to the dealer from whom the machine was purchased, or send them prepaid to our factory at Ripon, Wisconsin. No transportation charges, or charges for local repair service will be allowed.

It Is Further Agreed that at any time within ten years from date of purchase, the owner of the machine covered by this bond can return the washer to our factory, freight prepaid, and we will replace all worn working parts, rebuild and refinish the washer so that it will be substantially as good as new at a cost in no case to exceed \$20.00. The Electric Motor or 4-cycle gasoline engine is not included in this agreement as each is fully covered by the guarantee of its manufacturer.

BARLOW & SEELIG MFG. CO.
Ripon, Wisconsin

This Guarantee and Service Bond is Transferable

plus a
\$50
saving



NO washer—regardless of price—is backed by a stronger guarantee than the SPEED QUEEN.

This is because the finest features of quality are included in the SPEED QUEEN.

Whether you are looking for speed... cleanliness... safety... colorful beauty... rugged durability... or for all—you will find them embodied to the highest degree in this popular washer.

Yet, in addition, the SPEED QUEEN has the sole distinction of offering all of these advantages at a saving in price of over \$50.

Mail the coupon below for interesting folder describing the SPEED QUEEN and also giving the name of our dealer in your town.



For homes having electricity, the SPEED QUEEN is available with a high grade electric motor.

Note These Quality Features:

- Large Balloon Wringer Rolls
- Polished Aluminum Tub (Or Choice of Porcelain Tub)
- Submerged Aluminum Agitator
- Removable Splash Ring
- Standard Capacity
- Double Walls to Keep Water Hot
- Self-Oiling Bearings
- Enclosed Mechanism
- 4-Cycle Briggs-Stratton Gasoline Engine

SPEED QUEEN Aluminum Washer

BARLOW & SEELIG MFG. CO.
Ripon, Wisconsin

Gentlemen: Please send me printed literature describing the advantages of the SPEED QUEEN for farm laundry service; and tell me also the name of the nearest SPEED QUEEN dealer.

Name.....
St. or R. F. D.
Town.....
State.....



Saves Your Fertilizer Money

Will you be one of the hundreds of farmers who will save 10% to 15% on fertilizer bills this year? You can be—by using Dempwolfs' HIGH TEST (Double 4-8-7) fertilizer—the newest and finest development in fertilizer-making. One ton of the new Dempwolfs does the work of two tons of other fertilizers—does it as well and with freight, carrying and storing charges cut in half, saves you \$4 to \$8 on every ton you buy.

Dempwolfs' HIGH TEST is a proven fertilizer. Repeated and thorough testing shows it to be the finest fertilizer we have ever offered. Specify Dempwolfs' HIGH TEST for this year's planting. Write for detailed folder.

York Chemical Works
York, Pa.



Heals the hurts that slash your profits

THE feeding and care of your cows may be ever so efficient, but don't overlook the vital importance of healthy udder and teats. These final organs in the process of milk-production can quickly rob you of a profit if their delicate tissues develop a stoppage or even the slightest discomfort. It pays well to quickly care for the slightest injury. Serious troubles usually develop fast.

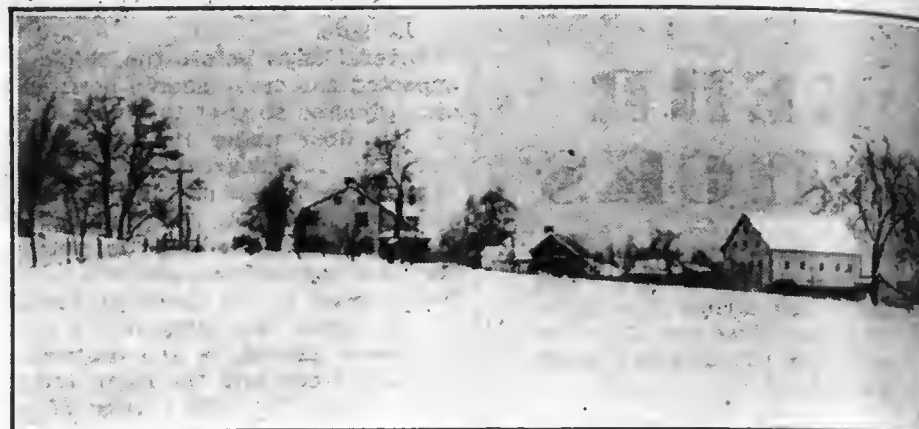
A penetrating application designed for tender tissues

BAG BALM is an ointment of unusual healing properties, especially designed for quick, thorough action on the delicate tissues of the udder and teats. A powerfully-antiseptic oil—a priceless ingredient made by our own exclusive process—is compounded with the refined BAG BALM medicinal ointment. Deep penetration and quick healing bring amazing results in all chaps, cuts, cracked or sore teats—or in treating Caked Bag, Bunches, Inflammation of the udder and other troubles that give discomfort and cause hard milking. Pleasant to use—cannot taint the milk. Inexpensive; large 10-ounce package 60¢ at feed, drug, hardware and general stores. Mailed post-paid if dealer is not supplied. Free Cow Book sent on request.



Avoid Imitations. For BAG BALM results, insist on BAG BALM. Take no chances on substitutes, some of which contain quick-drying and harmful Formalin. For delicate healing use BAG BALM. It is gentle but thorough.

DAIRY ASSOCIATION CO., INC., Lyndonville, Vermont



"No sky above; no earth below. A universe of cloud and snow."

Direct and Indirect Taxes

By R. W. STIFFEY

IN your issue of January 25th appears some very interesting tax data on Mr. Horst's page.

It shows that the per capita tax for local purposes in 1927 was \$36.95, for federal purposes \$28.13, and for state purposes \$11.45; a total of \$76.52 for each person in the state. As the average farm family consists of five persons, that is a family total of \$383.60.

As they would say in the street: "Now what do you know about that?" Do we really pay that much? If so it is surely something to think about. It is beyond reason and almost beyond belief, nevertheless, I believe we do pay it, all of it, incredible as it may seem. Is it any wonder that we often find ourselves mighty short of change?

In this article I am going to say something about indirect taxation, the secret, underhand weasel taxation, the taxation that robs us unawares, that sneaks up from behind and throbs us, that unperceived, surreptitiously kills and destroys.

The Larger Share

In all the articles I have read in farm papers and magazines the matter of indirect taxation has hardly been referred to much less discussed. Why this should be so I don't know, for our indirect taxes make up by far the larger share of our burden. The average man seems blissfully unaware that he is being continually plucked by them in almost every business transaction he makes and that every day, in every way, he is paying taxes for which he gets no receipts. More than that, the average man is hard to interest in indirect taxation and seems peculiarly dense in regard to it. The reason, I take it, is that the average man does not think. How many of us do? If he does think it is only we get out of this tax middle farmers will use their brains, their own brains, all the brains they have, with all the might and strength they have, with little regard for what others say or think.

In the article in issue of January 25th it is said: "It is true that the farmer is seldom required to pay state or federal taxes in Pennsylvania."

That, unhappily, is not true. Nothing could be farther from the truth. It is a mistake, a prevalent but very dangerous fallacy.

This statement, I take it, was a mere inadvertence, for I am sure that both Mr. Horst and the Chamber of Commerce from whom he quotes know very much better than that. What they meant was: It is true that the farmer is seldom required to pay directly state or federal taxes in Pennsylvania. Which is true. But he pays them indirectly all the same.

Gathered from Corporations

The great bulk of our state taxes is gathered from corporations, the public utility group paying the largest share. Where do these corporations get their money? You know, of course you know, and then you know who pays their state taxes for them. When a tax is laid on a corporation

or any business it is charged up with overhead expense. When it comes to make up rates for its service or price for its goods this charge (the tax) expense is included and rates and prices boosted accordingly. The tax is thus handed back to us with a good fat commission added.

We may not pay all these direct but our butcher and baker and candle-stick maker do, and in dealing with them we get charged up with our little share. There can be no doubt about it, the users of their services and the buyers of their goods pay the corporation taxes with a good stiff charge for collection added. In ways the consumer pays a tax production, service or exchange, matter how or upon whom laid. The state gets \$11.45 per capita. We pay is something else again, probably not less than \$15 per capita.

A celebrated U. S. Senator from Pennsylvania, now deceased, regarded also at that time as in political control of state affairs and responsible for state legislation, was interviewed by a friend thus:

"Senator, I thought you were friendly to corporations."

"I am. What makes you doubt it?"

"How then does it come that heavy taxes are being laid on them?"

"Why," said the Senator, "don't you understand that? You should know. Corporations are not taxpayers; they are tax gatherers."

Yes, the farmer does pay state taxes, his full share with costs added. In addition he pays, with other motor taxes and licenses, gasoline taxes, hunting, fishing and dog licenses and still humbly looks for more and he will not look in vain.

State Aid

This brings us to the consideration of that blessed institution "state aid" by which we are helped so greatly and relieved of local taxes.

Where does it come from? Does it drop down like manna from Heaven or well up in a golden stream from the bowels of the earth? By what means has our state become a great Santa Claus endowed with inexhaustible hidden resources from which brings us rich gifts, donating us vast sums for roads and schools? Don't you, mind you, the state donates the money to us.

Gentlemen, if you will put your hands in your empty pockets and think a little you will probably discover where this "state aid" comes from. The late Robert G. Ingersoll aptly remarked: "The state is a pauper. It is continually passing around the hat." You may have noticed that. He was right. The hat is still passing round and farmers are by no means denied the high privilege and honor of helping to fill it.

"State aid" is a great game, very exciting and alluring. We are losing our heads over it. This scramble for state aid in its effect upon manners and morals and human dignity is approaching the level of the game "craps." It's a losing game to farmers. The longer and harder they play it the poorer they get.

The MARKET PLACE

By W. R. WHITACRE

DOWN in Mexico, the land where they elect their presidents and take a "pot shot" at them the next day, they believe in government control of business. A press dispatch from Nogales a short time ago stated that the production tax on green peas in the state of Sonora was increased from 5c a crate to \$2.50 a crate with the purpose of limiting shipments until prices in American markets improved.

This was government control with a vengeance, and what a howl would be raised in the U. S. A. if any such procedure was followed. They must have thought this too stringent, since it was modified in a short time. The latest report states that a \$2.50 tax is to be collected only on inferior peas.

Peas grading five kernels or better to the pod are allowed to cross the border at the old rate of 5c a crate. Shipments passing through Nogales at present are said to be of best quality, as the tax on inferior peas is prohibitive. This measure has been instrumental in checking the demoralization of the green pea market in the United States, according to Consul Maurice W. Altaffer.

Mexico is coming to be a strong competitor of Florida, as sections of that country have a soil and climate well adapted to the production of early vegetables. In addition to this the Mexican labor and land costs are lower. Last year Philadelphia alone received 439 carloads of Mexican vegetables. There were about 200 cars of peas and about the same number of cars of tomatoes. The balance of the 439 cars was made up chiefly of various types of melons and green beans.

This drastic tax law is an excellent illustration of the importance which these competitors of ours attach to proper grading and packing. Such a program would not work in this country where government supervision of private business is opposed, but it should cause growers in Pennsylvania, New Jersey and other nearby states to stop and reconsider the importance of supplying the markets with a first-class product.

Food and Lawns

MARCH or early April is the best time for fertilizing lawns, and chemical fertilizer is necessary if the poor lawn is to be a good lawn, or the good lawn is to be better, asserts Victor H. Ries, extension horticulturist for the Ohio State University.

Lime and barnyard manure often applied to lawns with the intention of making them better, don't have that effect, and usually make them worse, is Mr. Ries' verdict. The lime doesn't help the sod, because lawn grass usually is more tolerant of acid soil than are the weeds. The barnyard manure, while it furnishes plant food, will also add more weed seeds to those already in the sod, and it is better not used. "The best fertilizer for the lawn contains ten per cent nitrogen, six per cent phosphoric acid and four per cent potash," says Mr. Ries. "It should be applied at the rate of two pounds to each 100 square feet, preferably when the grass is dry, or any time early in March."

If fertilizer with the 10-6-4 formula is not available, Mr. Ries recommends the use of 4-12-4 or 6-8-8, with one-half pound of ammonium sulphate added to each 100 pounds of fertilizer.



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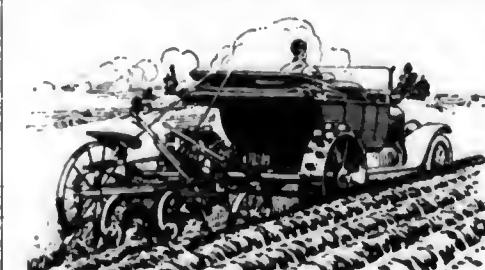
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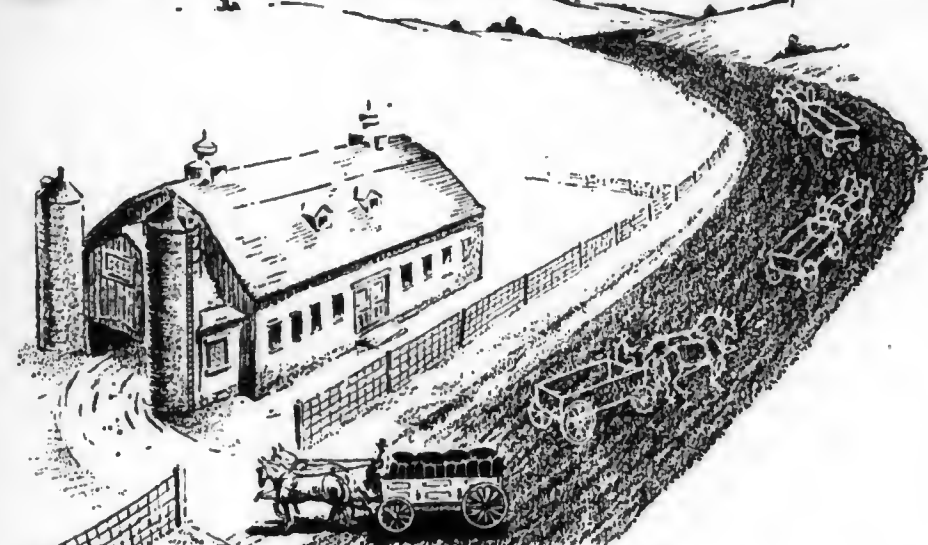
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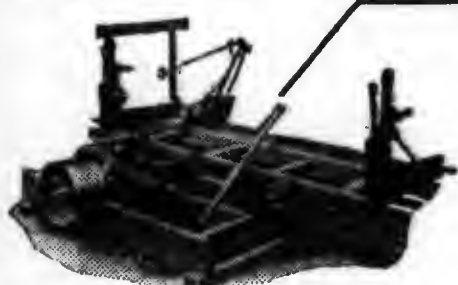
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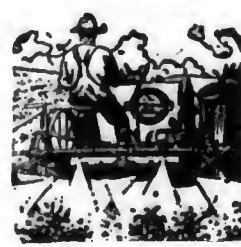
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Faulty Judgment

By FRANK K. RICH

"I WOULDN'T want to call it foolishness," maintained Deacon Hyne, discussing the mishaps of Paul Warner, who had attempted to kindle a kitchen fire with what he supposed to be kerosene, but what appeared from subsequent events to have been an active sort of gasoline. "I'd put it down more as a case of poor judgment, if I was called to give it a name."

"There's a lot of things laid to poor judgment that other folks might call different names, 'cordin' to the way they felt 'rds the one that done the job," Caleb commented. "Like Hen Wiggin building his house so his shed and kitchen was on the south side and got all the sun. He called it poor judgment—but his wife called it foolishness and I agreed with her."

"Every day, I s'pose," he went on, "if a man was to watch close he'd find somebody doin' somethin' that c'd be called poor judgment, if he wanted to give it a kind name, and just plain craziness if he tried to find jest the right name for it—and more'n half the time it'd be he himself that'd be the sinner."

"More'n that, Hyne," he submitted, "the very ones that'd be quick to censure somebody else for doin' an ill-advised thing will be the very person to do somethin' as bad—or wuss! Like Nod Bolles, say."

Twins Taken for Airing

"He's quite a carper," admitted the cautious deacon, "and full quick to see a fault in others; I've noticed that."

"He is," confirmed Caleb with emphasis. "He come into my mind since we been talkin' on 'count of somethin' I saw him do one day down at the post office; the time he bought the two live geese of Bill Maddocks's widder."

"It was about the time those twins of Nod's was right between hay and grass, like—too little to walk but big 'nough to git scared and squall like wildcats," he went on, "and one day Mis' Bolles rigged 'em up in clean jumpers and packed 'em into the baby carriage for Nod to give 'em an airin', sort of."

"Well, havin' that job laid onto him and not wantin' to waste time by only wheelin' them 'round, Nod figgered it'd be a good time to go over and see the widder Maddocks about a couple of geese he wanted to buy of her; so off he went about it, wheelin' the two yearlin's in the carriage and both of 'em happy as a couple of coon kittens."

Runaway Geese

"He got to the widder's and after a spell of dickérin'—for she's as close a trader as any man in the township—he managed to strike a bargain with her and then the question come up how he was to git 'em home; and fin'ly the widder roped 'em, leg and leg, and Nod figgered he c'd lead 'em all right by takin' a little time and trouble over it; and up to a certain p'int, he done it. They was c'nside'able wild and untamed, but by herdin' 'em careful he got 'em down as far as the post office and there he made up his mind to rest a mite, his arm bein' tired and the geese seemin'ly as fresh as they was when he started with 'em."

"Right then the question come up how he was goin' to make 'em fast whilst he rested his arms; he couldn't tie 'em to the hitchin'-post for Bill Ames's hoss was there and already actin' nervous at squawkin' they was makin'; so after castin' round a minute Nod backed the baby carriage up against the buildin' and made the geese fast to the back axle—and then he went into the store to do a little tradin' and rest his arm a spell."

"You know, Hyne," Caleb explained, "how it's quite a little down grade from the post office to the brook; and there's that place right above the bridge where folks drive through the brook to water their hosses and tight-

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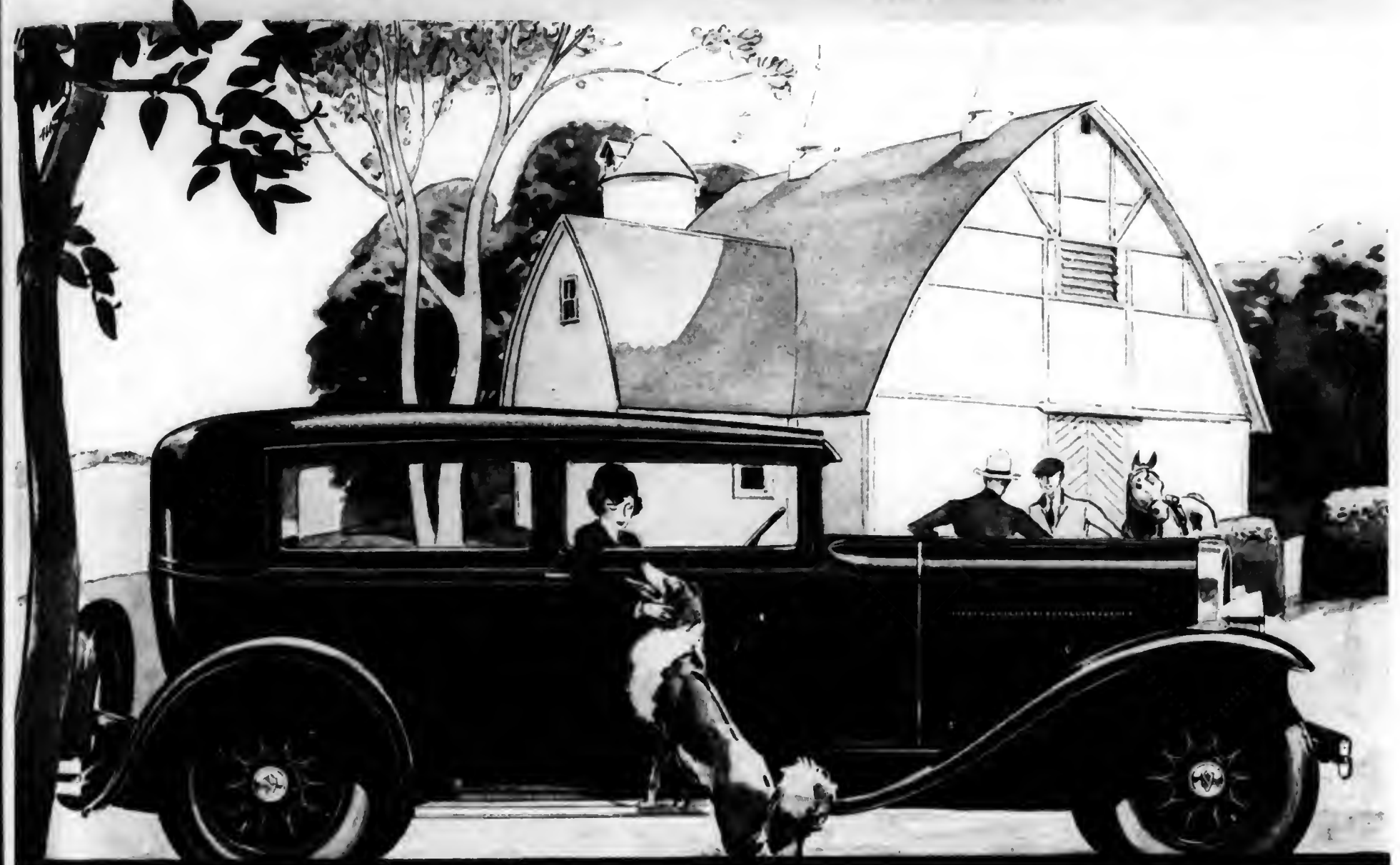
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Have you been thinking that it's about time you, too, were driving an eight-cylinder car? That's what is in the mind of many a farmer these days. And it's not surprising

when you consider how reasonably you can buy such a car as the New Oakland Eight—with its superior performance. The Oakland Eight is General Motors' newest and lowest-priced 8-cylinder automobile. Yet it is really a car with a background of sixteen years' development, for the engineers responsible for it helped design General Motors' first eight 16 years ago. It has an engine which develops 85 horsepower, one horsepower to every 37 pounds of car weight. It is the first stock car of its size and weight to employ an engine of such high power. It has a full down-draft carburetor and manifold system and a two-plane cylinder head which assure efficient fueling under all driving conditions and uniform intensity of power impulses. Superior in performance, the New Oakland Eight is also exceptionally economical. Its parts are unusually accessible and for this reason maintenance expense is low. Its sound basic design assures long service. And its gasoline mileage equals the mileage obtained with many six-cylinder cars of similar size. See your Oakland-Pontiac dealer today and have the pleasure of driving this car. Once at the wheel, you will realize that General Motors' 16 years of experience in the eight-cylinder field have borne fruit in an unusually fine automobile.

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You know what a lot of things can happen to feet. So do we. That is why we asked Dr. Lelyveld, one of America's most noted foot specialists, to write, especially for the United States Rubber Company, a little book called "The Care of Farmers' Feet." It is a very useful book. It tells how to avoid and care for chilblains, corns, excessive perspiration, and a dozen other foot-troubles. It's a common-sense book, too. We want you to have a copy. If you will mail the coupon below, we'll send you one without charge.

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Durable, for heavy service yet good-looking enough for town wear. Cashmere upper. Red soles or Ebony with white soles. Warm fleece lining. 4- or 5-buckle length.

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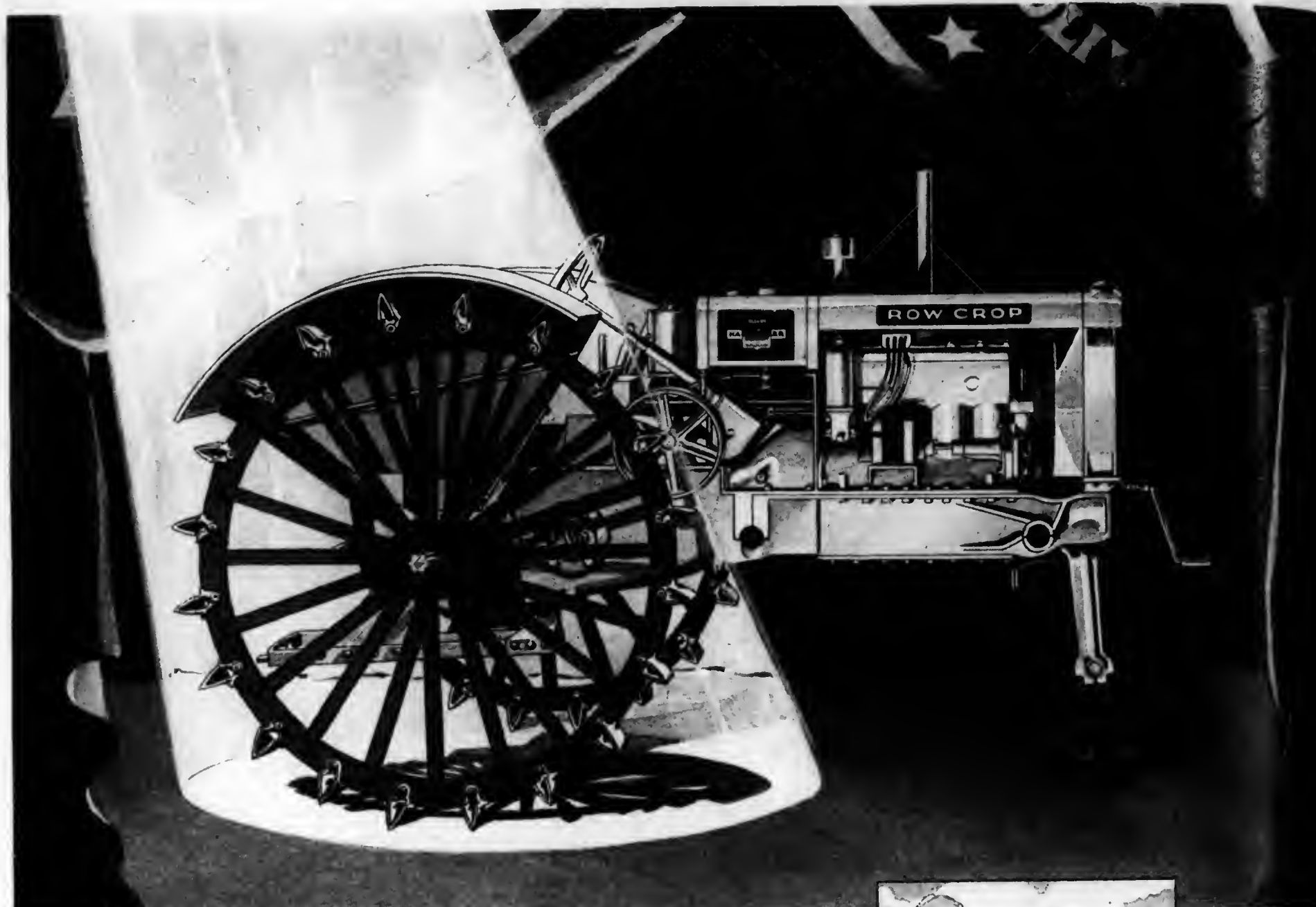


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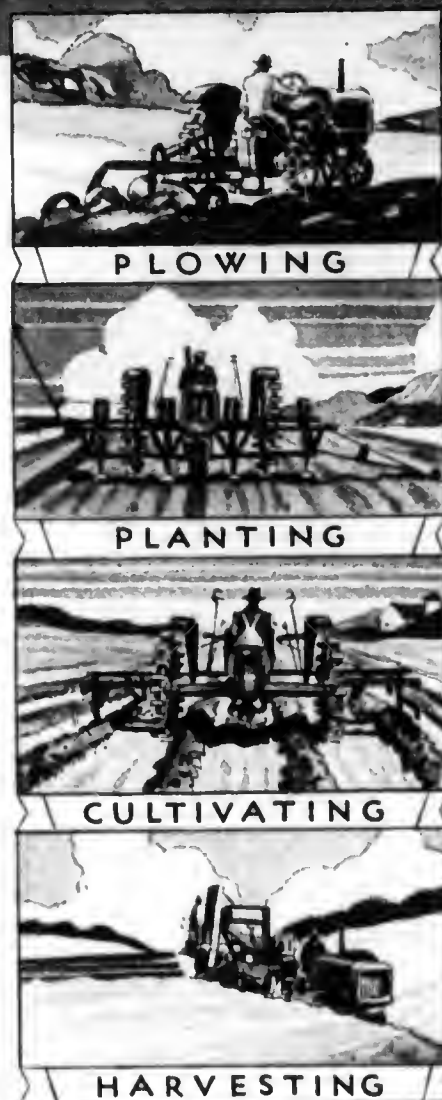
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March 8, 1930

on the spokes in a wheel if so be it's dry and the spokes rattle?" The deacon readily remembered the place, having seen it every day for twenty years.

"Well," Caleb proceeded, "Nod had been in the post office for mebbe two minutes and mebbe five--nobody was nothin' the time--when all at once there was a louder squallin' out of the geese and a rattlin' 'bout the same as a baby carriage would make goin' over small stones; and all of us that was in the store made a move to see what was takin' place; even Nod left off platin' out faults in the way 'Lisha Barrows was raisin' his children, to step along to the door to see if anything 'd be wrong with his own youngsters."

"And there was, Hyne," Caleb asserted. "There was a plenty wrong with 'em! Them two geese--and they weighed twenty pounds apiece and was nigh as strong as a couple of calves--had managed to pull the same way at the same time and they'd started that baby carriage down the grade to'rds the brook and they was ahead of it, wingin' and footin' it their best gait--headin' for water: when they was in trouble, you know."

One Good Effect

"There wa'n't nothin' to do," Caleb said, making plain the helplessness of the assembly. "They'd got a good start and no overtakin' 'em--and who ever heard of it doin' any good to holler at a goose? All we c'd do was to put after 'em; and we done it, Nod will in the lead!"

"They struck the brook where it was a little shelvin' so the carriage run out level and didn't tip over, and they kep' on 'til the water come up to their necks--and that minute they got up a squall that drowned out the geese--and they'd been doin' their best."

"Well," he went on, "we waded out and rescued 'em--geese, twins and all; and there wa'n't no real harm done, more'n that the twins was bringin' wet and scared jest about well--and that Nod got a jawin' from Mis' Bolles that I'll bet he carries every word of in his mind to this day!"

"But it had one good effect," Caleb concluded. "If Nod ever gits started 'bout his flaws in other folks' judgment all you've got to do is say: 'A man that wouldn't scarcely know how to hitch a couple of geese to somethin' solid!' and he'll shut right up that minute."

"I sh'd say he might!" the deacon asserted.

Champion Rodent Catcher

It is believed that Mr. Frank Auchincloss of Richland, Lebanon county, Pa., is the champion rodent catcher for the year 1929. Professional rat catchers may have done better than Mr. Auchincloss, but his record of 310 mice and 235 rats trapped in the year just ended appears to make him a champion.

Mr. Auchincloss has passed his score and ten some years ago, but is still "young" and a capable farmer. Besides assisting in the regular farm work, he, with only a single partner, has husked this fall 50 bushels of corn. It is this mighty pile of corn which draws the rats and mice from the near neighborhood. Mr. Auchincloss is determined that they shall spoil as little as possible of it, and he has his excellent record.

Robert I. Weigley.

Scores Women Drivers

THINK women automobile drivers are quite a nuisance on the highways of today. They would just as soon run over you as pass you by, when they have a punctured tire or other trouble you will see many a man sitting along the road waiting for a man to come along to help. Women drivers are always noted for being just as smart as a cat, but when a cop comes along they just smile at him so pretty that he can't help but pass them by. S. W.

PENNSYLVANIA FARMER

(367) 23

Ask Your Fertilizer Man About

4-8-7

It Makes Potatoes Pay!

In choosing your potato fertilizer this season it will pay you to examine the methods used by some of Pennsylvania's most successful growers. In spite of an extremely dry season the Pennsylvania 400-bushel Potato Club has had another big year with many members above that high mark. Describing the fertilizer practices of the club, Prof. J. B. R. Dickey, of Pennsylvania State College, says:

"All the club members this year used a complete fertilizer. Only four used less than 3% of ammonia and only a very few, over 4%. The potash percentage ranged from 4% to 10%, but usually ran around 7% or 8%. During dry seasons experiments prove that rather high percentages of potash keep the vines green longer and

give extra increases in yield. A great majority used about a 4-8-7 mixture in the past year. Experiments indicate that this is probably best suited to average needs."

Your fertilizer man can supply you with 4-8-7. If he cannot, ask him about 4-8-6 or 4-8-8. Well-fed potato plants stay green and vigorous under adverse weather conditions and produce big yields. The potash in these fertilizers keeps plants working hard, transferring starch and storing it into tubers to make big chunky No. 1's. Feed your crop carefully and abundantly. IT PAYS!

N.V. POTASH EXPORT MY.

of Amsterdam, Holland

19 West 44th Street New York City

Extra
POTASH  **PAYS**
Extra Cash
[Potatoes are a potash-loving crop. Make sure your potato fertilizer contains plenty of potash.]



Roller-Harrow

A wonderfully useful implement in preparing the seed bed. The harrow levels the ground, brings the clods to the surface while the roller crushes the clods and packs the soil. One man with single team performs two operations.

Ask about Farquhar Grain Drills, Harrows, Two-Row Corn Planters, Shovel Plows, Potato Cultivators.

A. B. FARQUHAR CO., Limited
Box 746, YORK, PA.

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For a heavy crop of hay--pasture and green manure, soil improvement, sow Hoffman's Sweet Clover. Rich in protein. Thrives where other clover and alfalfa will not grow. Hulled and scarified--it starts quick. Clean--90% per cent. Free from foul weeds. Pure. Three varieties--White Blossom, Yellow Blossom, also Grundy County Dwarf strain.

Write today for free samples and big new catalog of field seeds.
A. H. HOFFMAN, Inc.
Box 413, Landisville, Lancaster Co., Pa.

Earliest Tomato

Nothing earlier to be had anywhere. Regular price 15¢ per pkt. but to introduce June's Quality seeds will send a pkt. of this Tomato and Cucumber, Carrot, Lettuce, Onion, Radish, Pumpkin, Asparagus, Giant Zucchini and Ruffled Giant Sweet Peas if you will enclose 10¢ each to pay postage and handling. A coupon entitling you to 10¢ worth of seeds and plants free with each collection. Our handsome FREE colored catalog is full of bargains to seeds, plants and samples and is sent free. Many now send free. J.W. JUNG SEED CO., Farm 16, MADISON, WIS.



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"On the bag—and in it"



LIKE the seal on a bond or the signature on a check, V-C's name on a fertilizer bag means "Good." V-C fertilizers pay face value in full.

Demand high face value, high analysis—and in a V-C bag you get rich, concentrated plant foods, the very best that economy and experience advise. In all V-C fertilizers, whether low analysis or high, honest values are blended most carefully and every value is there.

A name—Virginia-Carolina Chemical Corporation. But what a good old name! No wonder you welcome it on a V-C bag, for you know that name is inside too.

Virginia-Carolina Chemical Corp.,

RICHMOND, VIRGINIA

Factories and branch offices at convenient points
Ask V-C's Service Bureau at Richmond for free advice or help on any problem of soil management.

Peaches Rot on Trees

I have a peach orchard near the top of a hill. Last year I had a good crop of peaches, but about the time they began to ripen they rotted on the trees by the bushel.

This ground is in grass and cut as meadow. It faces northeast. Part of this ground is inclined to be wet and soggy.

YOUR peaches are attacked by a fungous disease, the brown rot. Spraying or dusting is the only satisfactory preventive. Spraying should be with self-boiled lime-sulphur or dry-mix lime sulphur; dusting with very finely divided dusting sulphur, perhaps mixed with some dry lime-sulphur. From two to five applications will be necessary, according to the season and variety, beginning when the fruit is about half grown.

In addition to spraying or dusting, the fruits should be thinned so that they will not touch each other when ripe, as the disease spreads in this way. "Mummied" fruits, the dried, wrinkled, diseased fruits of last season, are the source of infection this season. They should be gathered before spring and buried or burned, or shaken off and plowed under.

Do you really expect to have a profitable peach orchard when "the grass is cut as a meadow"? If so, it will be quite unusual. Most successful commercial peach orchards are cultivated annually and late summer cover crops, as millet or buckwheat, are plowed under.

Peaches Ripen Late

Kindly let me know through the columns of the Pennsylvania Farmer what to do with my peach orchard of seven hundred trees. They are coming five years old this spring. They had two crops of peaches.

Trees are kept in fine shape, nice and thrifty. Peaches always ripen two weeks later than my neighbors' ripen and I have the same variety, J. H. Hale, Elberta and Salway. I spray the trees and fertilize with nitrate of soda in May. Would peaches mature earlier if I would feed the nitrate earlier? What time would you suggest?

THE time of applying nitrate of soda, provided it is applied in early spring, would not materially affect the date of ripening, but evidently you are using it too late. It should go on two weeks before the buds burst; this is more likely to be in April than in May. If no nitrate were used, the fruit would ripen earlier, perhaps a week or more earlier.

If you could get enough new wood each year, by thorough cultivation and severe pruning, so that it would not be necessary to use a nitrogenous fertilizer, this might give you the desired result; but you would run the risk of losing in size of crop more than you would gain in earliness of ripening.

I suggest that you cut down your nitrate to the smallest amount that will give enough new wood for next year's crop, when coupled with good cultivation and heavy pruning, and apply it earlier. If you want to plant a yellow peach that will ripen before Elberta try South Haven. S. W. F.

Quinces Fail to Bear

My quince bushes bloom heavily in the spring but about a week later all except a few fall off. They do not freeze. They are about 15 years old and are planted in rich black soil.

A severe pruning would be the worst possible treatment; it would favor a succulent growth of sprouts which would be very susceptible to that most destructive disease of the quince, the fire blight. Prune the bushes lightly, if at all. Sometimes the blossoms are killed by fire blight, and occasionally by a fungous disease, but the probability is that this is a pollination or nutrition problem.

S. W. F.

If You Know This Orchard, Show Them This Ad.

Some disk harrows can't work in certain soils of Pennsylvania—rocks and stones and lime gravel soil wear them out too soon.

We've been told about a certain 40-acre orchard in York County that has given up disk harrows because they can't stand the grit. A single son's work and they're a complete wreck.

This orchard should use Clark "Cutaway" harrows.

For Clark "Cutaway" disks are tough. They're made of cutlery steel, heat treated and tempered.

Purged edge disks found only on Clark "Cutaway" harrows and plows stay longer. They won't crack or break even on stony soil.

They're unconditionally guaranteed for 3 years. Any disk that cracks or breaks or becomes unserviceable from any cause during that time will be replaced FREE. And you are the judge.

Clip coupon for FREE catalog which shows the complete line of Clark "Cutaway" harrows and plows and shows the type of disk harrow that has given from 10 to 40 years of service. "The Soil and Its Tillage." Also see Clark's "Cutaway" harrows and plows.



Single Action Harrow with cutlery steel disks, heat treated and tempered. Unconditionally guaranteed for 3 years. Disk carry weight of machine. Disk extension for mowing and grading. Clark's "Cutaway" harrows and plows. "The Soil and Its Tillage."

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THE YOUNG PEOPLE

"Make the Best Better"

By HARMONY HUTCHINSON

ONE of the Pennsylvania Four-H girls' projects is the "My Own Room" Improvement Club. Girls in these clubs learn to utilize materials at hand and turn them into attractive furnishings for rooms.

An educational exhibit at the State Farm Products Show at Harrisburg in January showed what is possible at little cost. An adequate and convenient bedroom was fitted up in a 9-by-12-foot space.

A closet was improvised from boards and fitted up with a pole. The top of the closet formed the shelf for keeping the hat box. The box, a soft green, was made decorative by pasting a colored picture over the label. A muslin curtain on a rod could be drawn to make the closet dustproof. A scalloped figured valance at the top made the closet attractive as well as useful. A shoe and stocking bag of a soft green gingham bound in tan hung on one side while a laundry bag of the same material was on the other side. Six hangers and shoe trees which had been enameled tan completed the closet fittings.

At the center of the back wall of the room was placed a dressing table made from orange crates and a board, lined with the same print as the closet valance, with muslin curtains to draw over the shelves and a scalloped printed scarf for the top. On either side of the mirror were pictures, prints of famous paintings, framed with adhesive tape and shellacked. At the other corner of the room was one of the two windows. The ruffled curtains were made of inexpensive unbleached material dyed the same green. An iron army cot was made into a day bed for the sum of sixty-four cents by bleaching feed bags and making covers for the ends and cot. The same bags were dyed green, hemstitched and embroidered in orange and lavender wool for cushions on the cot. A small table with a lamp made from an old jug electrified and a pleated dull orange paper shade stood at the head of the bed against one wall.

Old Pieces Refinished

Against another wall was the study and relaxation corner. An old table had been refinished. A desk set consisting of blotting pad and book ends

was covered with an attractive green paper, and a utility box was covered with a figured paper in violet, green, orange and black. At the left of the desk was the other window, insuring correct light as well as cross ventilation. Beneath the desk were simple home-made book shelves. A bridge lamp with a plain shade was handy to the desk and rocker for either study or sewing purposes.

The chairs and tables were old pieces refinished. The color scheme of very soft green, violet and touches of yellow orange made a lovely combination.

Any girl can improve her room by following a few simple rules.

1. Provide convenient arrangement by making furniture conform to structure of the room and by grouping according to use.

2. Plan harmonious color scheme by having large areas (wall and floor) dull plain colors or indistinct figures and by bringing in bright colors in small quantities (pictures, candles, etc.)

3. Make care and cleaning easy by using simple furniture, smooth walls, hard surfaced floors and washable woodwork.

All this is a part of the Four-H Club Girls' Room Improvement Club. Details of this project can be obtained from the home economics extension representative in your county. She has her headquarters in the same office with the county agricultural agent, both workers being in the Extension Service of the Pennsylvania State College.

An Evening of Fun

By BARBARA E. SHOEMAKER

AT last the evening for the party arrived. The house was lighted with tall green candles and shamrocks decorated the wall. Every boy wore a bright green tie and the girls had ribbons.

Have you guessed it was a St. Patrick's Day party?

There was a contest. Each one was given a slip of paper, a toothpick and a stick of chewing gum. After chewing awhile, the object was to shape a pig with the toothpick. The reward was a little, wiggly wire snake, that made the girls scream.

A pen and ink sketch of a pig hung on the wall. We took turns pinning on the tail. The game grew quite exciting.

Every one acted as Irish as possible, which made lots of fun.

Oh, yes! and each one had to cross the Irish Channel. A chalk line was drawn on the floor, which we tried to walk looking through the large end of a pair of field glasses.

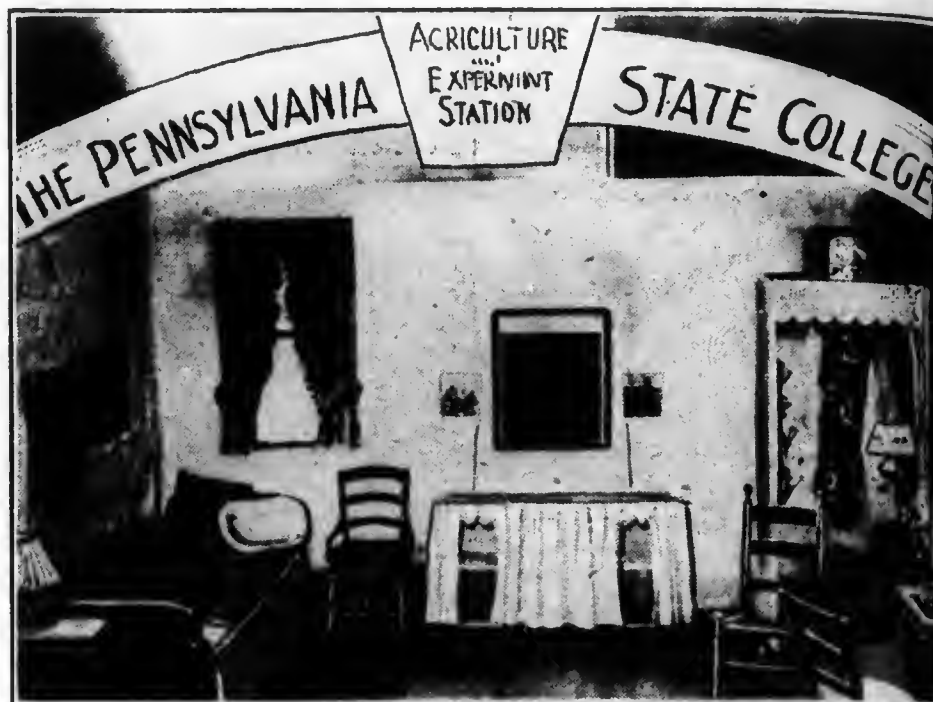
Then the lunch was served. We had nut salad covered with whipped cream, on a lettuce leaf, green cakes shaped like a shamrock, tomatoade in tall, thin glasses, and a dish of pistachio ice cream.

When we had finished eating we sang Irish songs and told the funniest Irish jokes we could think of.

All too soon it was time to leave. Being presented with small Irish hats, we lined up, bidding farewell to our hostess and thanking her for the lovely evening. Then we marched home to dream of the green Isle of Erin.

PRIZE WINNERS

These boys and girls have received prizes for submitting the best story about the naughty kittens: Jean Bigard, Geraldine Thomas, Beatrice Croft, Delma Gump, Raymond Kiefer, Alleen Barton, Dorothy Williams, Leslie Reynolds, Dorothy Murray, Dorothy McCusker, Cecelia Coskey and Fay Joyce Flint.



A Corner of the Girl's Room

ANOTHER LIMERICK

Submitted by Christine Winnies, Penna.
He lives with his friends in the sea;
The children who spy him all flee.
Though he is quite small

He can sting the tall

Add the last line to the limerick and receive a book prize. Send your answer immediately to Puzzle Editor, Pennsylvania Farmer, 7301 Penn. Ave., Pittsburgh, Pa.

SIGNS OF SPRING

I have a little pussy,
Her coat is silver gray.
She lives in the great meadow
And she never runs away.

She will always be a pussy,
And she never will be a cat.
Because she is a pussy willow,
Now what do you think of that?
New Jersey. Dorothy Grabanla.

The Bible tells us how hard it is for a rich man to get to Heaven, but it does not say that it is a cinch for a poor man either.

A GAME OF "I SPY"

Hyacinth, daffodil, crocus, so spy,
Down in the ground are all playing "I spy."
"Safe! You can't find us," they cry, "Mr. Sun!
You must be it for a long time! What fun!"
Patters the rain on each young, tender thing.
Then comes the sun, and he shouts: "It is spring!"
Dotted the grass like dear fairy lamps lit—
"Crocus, I spy you, and so you are it!"
Mattie Lee Haugen.

Mother: "Oh, dear me, I am so worried,
Jean went out without her hat and it's raining."
Father: "Don't worry, she just had her hair shingled."

A friend who is not in need is a friend indeed.

Most soft jobs come as the result of hardwork.

To get the best in an argument, keep out of it.

Little Folks' Corner

Baby Squirrel

I MUST tell you about my pet squirrel. He has nice fine, red hair, and nice gray eyes. I got my pet one day during a storm when a tree blew down. He was just a wee thing then and is only six months old now. He eats nuts and corn. He is very shy and will play only on warm days.
Pennsylvania. Mary Baker.

Helen's Lamb

I will tell you of my pet lamb. I call him Dick. When he was little I had to feed him on a bottle and made a pet of him. He would follow me everywhere I went and could go as fast as I could run. He will follow nobody but me and if he sees me coming he will jump like a rabbit all the way to meet me. If I go in the house and don't let him in he goes "ba-ba" until I have to let him in. He is great big now but is still a great pet.
Maryland. Helen Bose.

More Lambs

I am going to tell you about my pet lambs. I had three of them. Their names were Snowball, Jimmy and Powder Puff. Powder Puff was the mother of Jimmy and Jimmy was my favorite pet. He followed me everywhere I went and would eat from my hands. One day I was running and Jimmy after me. I stopped suddenly and he bumped into me and I fell over. Then he stood and looked at me as if to say, "I didn't mean to do it."

This fall he was in the barnyard with the other lambs. One night some dogs came and killed him. Then with-

in a couple of weeks the dogs killed the other two pets.

Rose Goldscheiter.

Pennsylvania.

Jumping Rabbit

I have a cute little rabbit called "Snowball." Every evening we have fun with it. We put all the chairs in a ring. Then Snowball is put in the middle while we watch him do his tricks. He will jump over a spoon and back again; goes spinning around the ring and tries to stand on his head.
Pennsylvania. Florence Eifert.

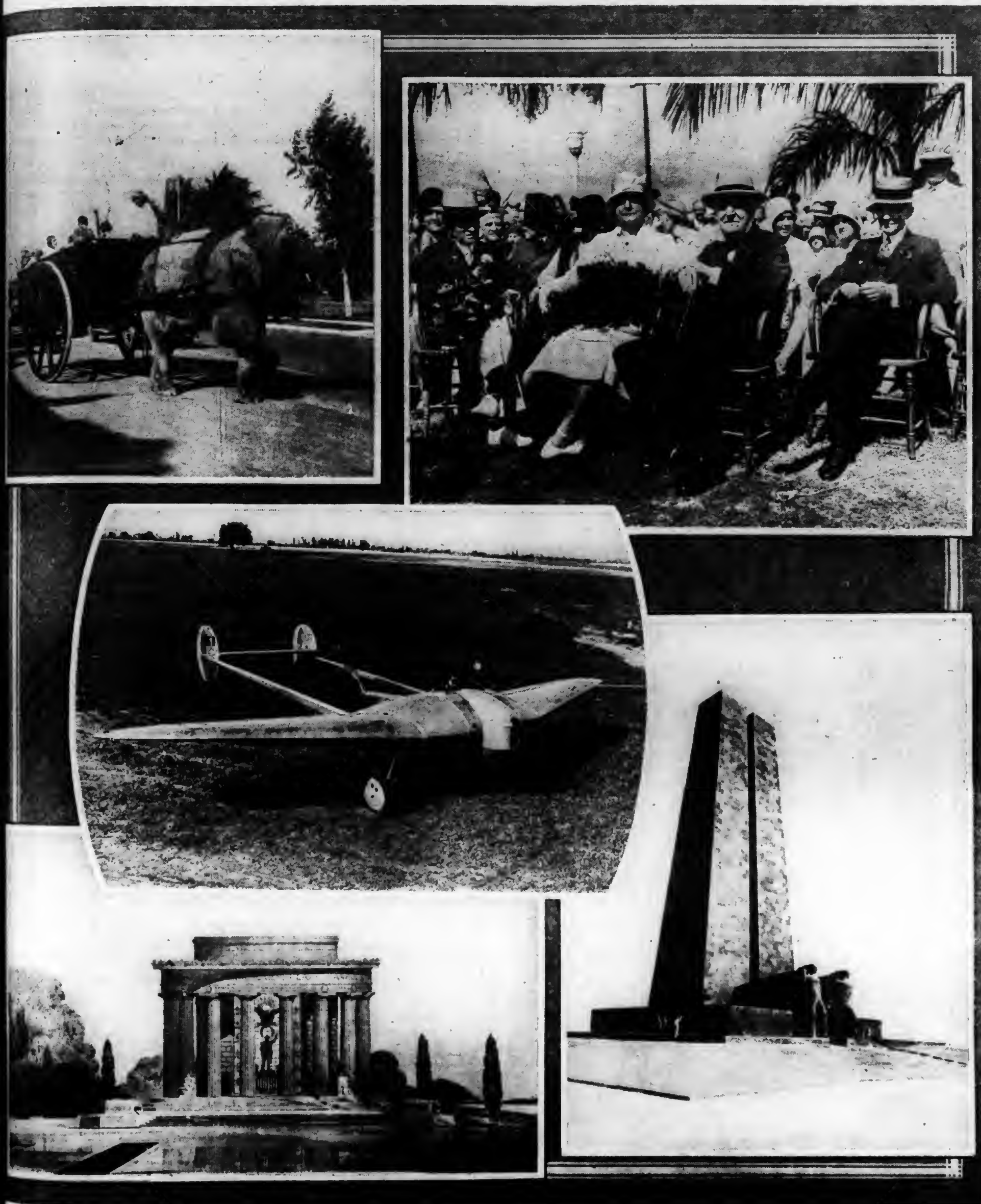
Frog in a Bowl

Last summer I had a pet woodchuck that would lie in my arms and drink milk out of a bottle. Then last winter I had a little frog in a fish bowl. I fed it flies. As I put them in the bowl it would jump off the moss and grab the flies so quickly I could hardly see them disappear. On cloudy days it would stay under the moss in the bowl and on sunny days it would sit out on the moss. Emma G. Craig.
Pennsylvania.

TELL US ABOUT THEM

What is the strangest pet you ever had or heard about? Next week there will be ten pencil boxes given as prizes to the readers who send in the best story on "My Quirkiest Pet." Send pictures if possible. Write plainly, using one side of the paper. Give your age, as well as your name and address. Only one week for this, so mail your letter immediately to Little Folks' Corner, Pennsylvania Farmer, 7301 Penn. Ave., Pittsburgh, Pa.

PASSING EVENTS IN PICTURES



(Copyright by Underwood & Underwood)

Upper left.—What a big pony and cart! Photo shows the elephant taxi, Rosie, pet jumbo which pulls the youngsters for a ride through the streets of Miami.

Upper right.—Fort Myers, Florida. Thomas Edison, world's foremost inventor and electrical genius, with his distinguished guests who attended the unveiling of a memorial tablet to Mr. Edison at Evans Park here on his 83rd birthday. Left to right, Harvey S. Firestone, rubber magnate; Mrs. Edison, wife of the inventor; Thomas Edison, and Henry Ford, Edison's close friend.

Center.—Burbank, Calif. Photo shows the old new "flying wing" designed by John K. Northrop (of record-breaking Lockheed plane

fame), said to be the first plane consisting only of a wing and tail assembly without use of fuselage to have passed the tests successfully.

Photo above shows the plane as a pusher, but the prop may also be attached in front as a tractor. Specifications of the experimental ship are: wing spread, 30 feet; height from ground, five feet; length, 20 feet; motor, 70 h.p., inverted in-line; maximum wing thickness, three feet. Test pilot Eddie Belande is shown in the cockpit.

Lower left.—First photo of the plans for the memorial to George Rogers Clark, noted western pioneer and explorer, which have just been approved by the Fine Arts Commission at Washington. The memorial is to be erected at Vincennes, Ind.

Lower right.—The striking monument, combining the ancient art of Egypt with modern art, which will be erected by the Compagnie Universelle du Canal Maritime de Suez, to commemorate the fifteenth anniversary of the opening of the Suez Canal this year. The monument, designed by the architect Roux-Spitz and the sculptor Raymond Delamarre, marks the spot where the Orient and the Occident meet.



A typical cow of this experiment

The Calving Story of 32 cows

A cow that has trouble calving goes off in her production for months. Calves that come dead mean a distinct loss, especially if it's a heifer and you wanted to save her. Calves dropped puny and undersized usually never grow out. These well-known facts are responsible for the following observations from the Dr. Hess & Clark Research Farm, of Ashland, Ohio.

Thirty-two cows were bred, fed and cared for alike. But in addition to the regular feed and care, 16 were given Dr. Hess Improved Stock Tonic for at least 60 days before they calved and during lactation. The other 16 cows did not receive the Stock Tonic.

The 32 cows all calved . . . but not alike! Of the 16 that did not receive the Stock Tonic, 7 had calving trouble. Two of them calved prematurely, dropping subnormal calves, one of which was born dead. One dropped a subnormal calf which died soon after it came. Two of the 7 developed serious udder trouble. Four retained their after-birth. One of the other 9 developed milk fever.

Every last cow of the 16 that got Stock Tonic calved normally. Every cow dropped a fully

developed calf. Every cow came to her milk normally except one that developed milk fever.

Fifteen out of 16 cows fed Dr. Hess Stock Tonic milked in top shape. No calving troubles to hamper their production. Half of the other 16 (the ones that didn't get Stock Tonic) were handicapped by calving troubles . . . a handicap that cut their milk production to sixty per cent of normal . . . and that for the entire time they were in milk.

Accurate records on every cow at the Dr. Hess & Clark Research Farm for the last three years show that those which received Stock Tonic produced over \$60 more profit per cow per year than those that did not. The Stock Tonic cows calved normally. Forty-three per cent of the cows which did not get Stock Tonic calved prematurely, or irregularly.

Dr. Hess Improved Stock Tonic costs 2c per cow per day. Follow our plan of continuous feeding for biggest returns. Now is the time to get a 90-day supply from your local Dr. Hess dealer. Figure 18 pounds per cow. Dr. Hess & Clark, Inc., Ashland, Ohio.

Dr. Hess Improved Stock Tonic

A Conditioner and Mineral Supplement

CATTLE

MILKING SHORTHORN CATTLE
HAMPSHIRE SHEEP HOOS
BIG TYPE POLAND-CHINA HOOS
Two bull calves, six months old, three younger, can furnish yearling heifers. All from high-producing cows. Five yearling rams, four and one ewe, all from high-producing ewes. All of the right type and right kind. If interested, write your name. All shipments guaranteed.
E. H. Williams, Marlinton, W. Va.

MILKING SHORTHORNS—One roan bull calf, 1 week old. Other calves also.
C. G. WAGNER, Westford, Pa.

MILKING SHORTHORN BULL AND HEIFER
Calves for sale, 2 to 7 months old, from good producing dams. Accredited herd.
LEE, R. SCOTT & SONS, Burgettstown, Pa.

D. S. POLLED HEREFORDS—A fine selection. Cows, heifers, bulls. Come or write.
CHAS. D. OIL, Millersport, Ohio.

BUCK & DOE RUN VALLEY FARMS
Hereford cattle, Poland-China hogs, Hampshire Pigs, Draft Horses.
THE SAINT AMOURE COMPANY, Marionville, Penna.

ACCREDITED MILKING SHORTHORN BULLS, in one year. Females all ages. Red and Rouen. C. M. KENNEDY, Ulster, Bradford Co., Pa.

Angus Cattle at reasonable prices.
Write BAYARD BROS., Wayneburg, Pa.

HORSES

HYLLMEDE FARM BELGIANS
Sired, sleek, old, Grand Champion Stallion, Sorrel, rising two-year-old, Junior Champion Stallion. The large rugged kind with quality. Bred nates, two, three and four years old. If in need of a stallion or mare, come and see these.
Hyllmede Farm, Fred H. Cook, Mgr., Beaver, Pa.

PERCHERON & BELGIAN STALLIONS
Work and show nates. If a good stallion is needed in your community, describe your wants.
W. O. ZIEGLER, Delaware, Ohio.

Registered Percheron Stallion, Indeb. 1389 lbs. 6 yrs. old, good breeder and worker, price low. S. D. GREINER, Poland, O.

SWINE

O. I. C. HOGS on time
Write for Hog Book.
Originators and most extensive breeders.
L. B. SILVER & CO., Box 506, Salem, Ohio.

POLAND CHINAS
of approved breeding. Bred Sows, Service Boars, Private Sale Catalog to prospective buyers.
C. S. EPFLEY, Zanesville, Ohio.

BIO TYPE POLAND-CHINAS. Fall pigs either sex, bred gilts, big, easy feeders. Price right.
O. C. FOWELL, Ada, Ohio.

BERKSHIRE Pigs Registered.
Superior Breeding Stock.
WOLF CREEK FARM, R. 2, Silverside, Pa.

THREE GOOD, well-bred type Berkshires gilts, 6 months old, not bred \$20.00 each, registered.
W. F. McPHERAN, Furness, Pa.

Chester Whites Since 1887. Bred gilts, fall pigs. Size, type, quality.
J. C. & C. H. Brautigam, R. 2, Sidney, Ohio.

CHESTER WHITES—Polished big type Chester, all ages, 12 sows farrowed 1st pigs, priced low. Must please.
C. E. Cassel, Hershey, Pa.

QUALITY CHESTER WHITE March gilts, bred for service. Full pigs of both sexes. Sired C.O.D. on app. A. H. Crowner, Mt. Sterling, O.

REG. SPOTTED POLAND-CHINAS. Sows, boars and pigs. Also Cheveney cattle. Write wants.
A. M. KENNEL, R. 2, Honey Brook, Pa.

AT YOUR SERVICE is the attitude of every advertiser in this paper. Write them about your needs. Mention Pennsylvania Farmer.

DAIRY CATTLE

HOLSTEINS—Good individuals backed by practical production records from a clean herd. Inquiries solicited.
Graha Farm, Inc., Clinton, Pa.

PENSHURST AYRESHIRE—Combine high production, large size, with good quality. Accredited, tubercle-free and abortion free. Choice calves at farmer prices. Raise them, now while surplus milk is cheap.
PENSHURST FARM, Narberth, Pa.

AYRESHIRE CATTLE of the best blood lines. Herd T. B. Accredited. Animals of both sexes and all ages.
Geo. B. McConnell, Wellington, Ohio.

GUERNSEY BULLS, Registered. "Border Hilder" and "Langwater" breeding. Accredited Herd.
Kawles Farm, R. 2, Box 42, Coraopolis, Pa.

HOLSTEIN BULL CALVES, two to three months old, from good individual dams and sired by a son of North Star Queen Champion.
J. B. & J. R. HENDERSON, Hickory, Pa.

REGISTERED, eight-month-old GUERNSEY bull. For particulars apply.
Superintendent, Dismont Hospital, Dismont, Penna.

REG. GUERNSEY BULLS
2 to 14 months old, T. B. and blood tested.
D. A. MORROW, Exton, Pa.

For Sale 25 head young Jersey cows and heifers. All registered, Sybil and dual interest breeding. Federal accredited herd and blood tested. Inquire.
HIGHLAND FARMS, Huff Bldg., Greensburg, Pa.

Two Reg. Jersey Bull Calves, 4 wks. old. Two, 8 wks. old. Two ready for service. Heifers. Accredited herd.
C. P. & M. W. Bigham, Gettysburg, Pa.

REGISTERED JERSEY HEIFERS, bred and raised. Also bulls, best of breeding.
D. J. KENEF, McVeytown, Pa.

Farm & Dairy

By L. W. LIGHTY

OATS is grown in every section of our state and next to corn is the largest and best feed crop we grow. It is true in the altitudes of the southern counties oats is not very productive in seasons, but being a convenient and an easy step in the rotation crops it is generally grown, and the extremely low price of wheat will be more largely grown.

When wheat prices afforded considerable corn stubble was readily sown to wheat in the autumn and that reduced the oats acreage. Usually the yield of wheat on the stubble is light. We can grow four or five times as many bushels of oats to the acre, which under present conditions is worth more than the wheat.

Another consideration is distribution of labor. Sowing the corn stubble to wheat crowds an already busy season and also enlarges the harvesting area when haymaking pushing us.

There is only one excuse for not growing the corn stubble to wheat and is to practice the three-year rotation which hardly one in fifty do. A farmer sows soy beans instead of oats but we need more experience but we recommend this plan generally. The logical as well as the practical steps in the rotation of the great majority is corn, oats, wheat and clover to sod.

Some Requisites

The old-time notion was that will grow and yield regardless, but are rapidly learning better. Quality few have given attention to the seed and by careful selection and seed only perfectly clean, plump and seed have increased the crop 50 to 100 per cent in the last several years. Of course it was not seed alone; the better preparation and the seedbed contributed considerably to the increase in yield.

Fertilization has been a great factor. Not long back the majority farmers considered the fertilizer piled to oats as practically lost, the progressive ones soon demonstrated that a liberal application would fully increase the quantity of seed and the size of the heads. When the threshed the kernels were plump and heavy instead of light and chaffy was the case with that which no fertilizer. A bushel of 32-pounds oats is worth lots more than one of 24 or 26 pounds.

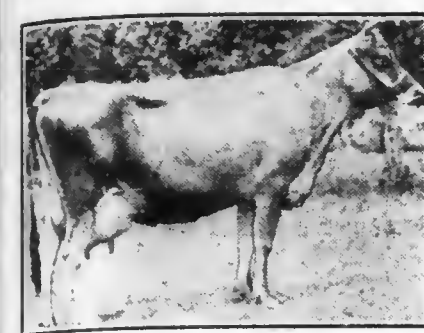
Thus of late years has the crop been greatly improved and the farmer greatly benefited. The crop is now more profitable, still there is plenty of room for improvement.

Oats a Major Crop

In northern sections and the altitudes of Pennsylvania wheat is grown in a small way. The crop tation is corn or potatoes, oats and grass for sod. The climatic condition is very favorable to oats. Large crops of fine grain are especially by those who have the needs of the crop and supply them.

Those who grow potatoes heavily and the residue of plant with a light application makes favorable conditions for the oats. Those who grow corn have less of fertilizer to the oats pays in oats crop, and pays doubly in the lowing crop of hay and the sod.

Frequently the limiting factor in production is the quantity of seed. Often we do not sow enough seed and true that some varieties stand out than others, but it is a quick growth at best, as it is a quick growth. On good soil fertilized, ten pecks of seed has been found best if seed is clean and viable. On the



This is Tiddleywink Quality Girl, the national champion senior four-year-old Jersey in the 305-day class. She made 1,000.62 lbs. butterfat 17,278 lbs. milk, in 365 days, while her 305-day record is 828.44 lbs. fat and 12,845 lbs. milk, making her the winner of two medals of merit. She is owned by Mrs. Florence Gale Neal of Oregon.

and eight pecks has yielded almost as much.

Registered Slackers

Doubtless it is quite legitimate and legal to rub it in on those who keep unprofitable scrub cows, but when one of them buys a registered cow and puts her in the stable with his scrubs and she gives less milk than a few of his scrubs he surely has a case against us. In such a comeback one of them has lately hit me pretty hard. His experience in a community where registered animals are uncommon was really unfortunate, because he got one of the registered slackers.

I did the best I could under the circumstances and showed where I had on a number of occasions urged breeders and sellers to discard such unprofitable cows, also where this work has been adopted by some associations for registry and that hundreds of cows have been put out of the registered class because they failed to yield profitably.

My friend conceded my argument, but assured me that did not make his high-priced registered cow give a profitable quantity of milk, and he was right. I might say it is not the first time I was raked over the coals about this unfortunate condition.

The time is here when every registry association for dairy animals should not only guarantee its pure blood lines but also give assurance to the buyer that the registered animal under proper management possesses the ability for profitable production. I realize it is a difficult problem, but it is being solved in some quarters and must be solved finally by every association.

I have in mind the common everyday farmer who needs help more than any other. To him an animal with the registry papers means something, but to my irate friend of sorrowful experience it means, unfortunately, less and a black eye for registered animals and possibly those who recommended them.

New Law on Retailing Milk

ACT 428, which was passed by the last Legislature, and which takes effect September 1, 1930, requires that all persons selling milk or other fluid derivatives of milk for human consumption shall secure a permit from the Secretary of the Pennsylvania Bureau of Health, Harrisburg, Pennsylvania, or from the municipality in which the milk is sold, provided the municipality has a milk ordinance which calls for the sanitary inspection of the dairy farms furnishing milk to the municipality, and provided that the ordinance relating to dairy farms inspection is enforced by the municipality.

Application blanks for permits to sell milk may be secured from the Secretary of the Pennsylvania Bureau of Health at Harrisburg. There is no charge for the permit but the applicant must furnish information as to the name and address of the applicant, designation of milk to be offered for sale, the name of the municipality or municipalities in which the applicant de-

DAIRYMEN: USE THIS NEW RAPID-FLO FILTER DISK

QUIT WORK ON TIME SHIP CLEAN MILK DAILY

The time needed to filter milk thoroughly has been practically cut in half with the perfection of the new Johnson & Johnson Rapid-Flo Filter Disk, which established an average period of 5 minutes to filter a 40-quart can of milk during extensive tests under actual farm conditions (particulars on request).

FINISH YOUR WORK ON TIME

Your men need no longer waste their time waiting for the milk to filter. Rapid-Flo permits a steady stream of milk to pass through the strainer—with a speed never before attained! Your men will not be tempted to jam the strainer down on the can to hasten filtration. Jamming the strainer damages the disk, defeating the purpose of filtration.

The photograph at the right, taken during the tests, shows how quickly milk flows through the Rapid-Flo Disk. Rapid-Flo combines accuracy with speed—it gets all the dirt in the shortest possible time. It is made under the same rigid sanitary conditions as the world-famous Johnson & Johnson surgical dressings and hospital supplies.

Regardless of the high quality of the milk you produce, you can not get top prices for it if you ship it to market containing dirt and sediment. Test Rapid-Flo Disks at our expense. Send the coupon below for free sample disks.



GET THIS FILTER DISK CABINET FREE

For a limited time your dealer can supply you with this attractive, convenient, steel disk storage cabinet (retail value \$2.50) free with an initial purchase of two cartons of Rapid-Flo Filter Disks. With the aid of this cabinet your disks are kept clean and dry and are within instant reach. Mail the coupon below for Free Samples of Rapid-Flo Filter Disks and complete information of the Free Sanitary Disk Cabinet.



This attractive cabinet hangs on the wall in the milk house, up out of the way. Holds 600 disks. Hinged drop-front makes removal easy when supply is half-used up.

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NEW BRUNSWICK, N. J. U.S.A.
Dairy Filter Products Division

Without obligation, send me your Free Sample Package of Rapid-Flo Filter Disks and information of your Free Sanitary Disk Cabinet Offer.

Name _____
Address _____
Check size of disks you use: 6" ☐ 6 1/2" ☐ 7" ☐ 7 1/2" ☐

NEIGHBOR DAVE SAYS—

"See by th' paper haircloth furniture comin' back in style — an' dresses goin' t' be longer, they say. Be good idee if they was thicker. Th' old haircloth sofa was a cross between a pin-cushion an' a barb wire fence — th' main thing about 'em was you couldn't wear 'em out. Long wear in anything is liable t' make it popular. Th' long wear o' leadclad fence is due t' th' thick, heavy coat o' lead — seven times more than th' coat on ordinary fence. An' it's made with care. Th' life of a fence is in th' coating — th' kind, th' amount — an' how it's put on. You ought t' see th' new 1930 catalog — Just address NEIGHBOR DAVE, at th' LEADCLAD WIRE CO., MOUNDSVILLE, W. VA."



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Saves the time of one man, because it requires only one man to shear and run engine. It's quick and easy to set up; easy to use; long lasting.

10% to 15% More Wool
—about a pound more per sheep—is what you get using Stewart Shearing Machines in place of hand blades. It's faster, and wool is taken off in better condition.

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Stewart Shearing Machines Also Horse and Cow Clippers
Hand power machines as low as \$14.00; electric machines at \$45.00 up. At your dealer's or send \$2.00 and have shipped from here, balance on arrival. Satisfaction guaranteed.

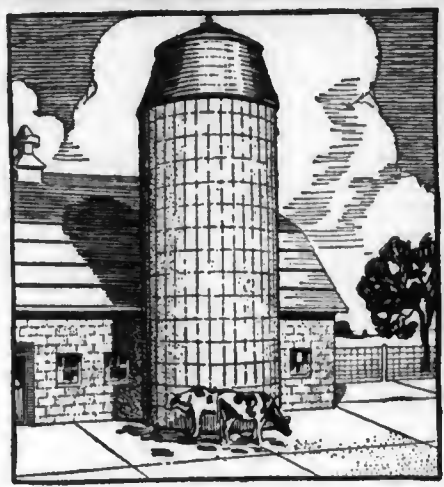
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ANSWER THEM and say you saw their advertisement in the Pennsylvania Farmer.

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Silage is a winter feed fully as succulent and palatable as that in June pastures.

Eleven per cent More Milk—build a Concrete Silo

Tests at the Vermont Experiment Station showed that a ration including silage produced 11 per cent more milk than the same amount of dry corn fodder.

More milk during season of peak prices means more profit.

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Please send me your free booklet on "Concrete Silo Silos."

Name.....
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City.....State.....

Raise them back of Cambria Fence

—a Bethlehem product, strong and durable, made of specially selected Bethlehem steel and heavily coated with zinc by a special process, Cambria Fence gives you years and years of trouble-free service. Your dealer can supply you with the style or styles you need. Every roll has the "Cambria Fence" label.



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Higher yielding and better strains of field crops have been produced recently by experiment stations and individuals. They pay much better. We operate in seeds of these improved strains. Our catalog gives all the facts. Every progressive farmer should read it. Write today for free copy.

K. C. LIVERMORE, Box P, Henneys Falls, N. Y.
CORN OATS BARLEY POTATOES CABBAGE BEANS PEAS WHEAT RYE

sires to sell milk and such other information as may be required by the Secretary.

Persons selling milk wholesale to a milk plant do not have to take out a permit. In such cases the milk plant must secure the permit and attend to the sanitary inspection of the dairy farms from which it receives the milk.

The regulations concerning the production of raw milk include the tuberculin test of the cows and handling in such a manner that the milk will be clean and free from disease producing organisms, prompt cooling of the milk, protection of the milk and cleaned containers from flies, proper construction and cleanliness in the milk house or milk room and an adequate supply of steam or hot water for cleansing purposes.

The regulations concerning pasteurized milk do not require the tuberculin test of cows but do require the observation of the other factors such as mentioned in the production of raw milk. Pasteurized milk is defined as milk heated to such a temperature and for such a length of time that all harmful organisms are destroyed.

No one who is keeping a dairy herd free from tuberculosis and who is observing a fair degree of cleanliness in producing a sanitary quality of milk need have any fear of this new law. On the other hand the act will be helpful in safeguarding human health in case the dairyman keeps unhealthy cows or is not observing reasonable cleanliness in the operation of his dairy.

Any one interested may secure a copy of the act and the regulations for its enforcement, also application blanks for permits, by writing directly to the Pennsylvania Bureau of Health, Harrisburg, Pennsylvania.

A. A. Borland.

C. T. A. Reports

Wayne County

THE Wayne County Cow-Testing Association finished its third year December 1, 1929, with 25 whole-year members. There were 596 cows in the Association during all or part of the year.

Thirteen herds with an average of five or more cows exceeded an average production of 300 pounds of butterfat. A complete list of these herds follows:

| Owner | Breed | Milk | Fat |
|--------------------|--------|------|-------|
| Homestead Farms | R.G.G. | 7953 | 404.6 |
| S. Hauenstein | R.G.J. | 7519 | 384.7 |
| S. O. Snedeker | R.G.J. | 7305 | 380.2 |
| W. F. Hauenstein | R.J. | 7205 | 372.3 |
| R. G. Erk | R.G.J. | 7496 | 360.9 |
| H. A. Robinson | R.J. | 6493 | 349.6 |
| Geo. Rosener | R.G.J. | 6789 | 348.4 |
| George Erk | R.J. | 6025 | 338.8 |
| E. H. Ledyard, Jr. | G.J. | 6143 | 335.3 |
| G. Smith & Sons | R.J. | 6524 | 332.5 |
| E. E. Kinaman | R.H. | 9257 | 310.8 |
| C. T. Box | R.J. | 5436 | 306.3 |
| R. A. Trevelyan | R.G.H. | 7350 | 300.9 |

Clark O. Lebo, J. E. McKeenhen,
Tester, County Agent.

Snyder County

THE Snyder County Cow-Testing Association finished its first year December 31, 1929, with twenty-two whole-year members. There were 228 cows in the Association during all or part of the year.

Six herds with an average of five or more cows exceeded an average production of 300 lbs. butterfat. A list of these herds follows:

| Owner | Breed | Milk | Fat |
|---------------------|--------|-------|-------|
| J. J. Beaver | R.G.H. | 11734 | 379.4 |
| Ellas Ritter | G.G. | 8335 | 376 |
| Harry Klingler | R.H. | 10614 | 334.8 |
| Ira Coleman | R.G.H. | 8764 | 312.5 |
| John R. Weller, Jr. | R.G.H. | 8783 | 306.1 |
| Geo. M. Hummel | G.H. | 8376 | 304.7 |

Clinton Shipman, Ira L. Yoder,
Tester, County Agent.

WHEN the three figures in a fertilizer analysis total less than fourteen the fertilizer is termed low-analysis. Low-analysis fertilizers are barred by law from the Pennsylvania market.



isn't just a matter of chance. In the Unadilla, succulent, sweet and productive silage is a matter of certainty. With its air-tight, water-tight staves and doors, feed settles compactly and cures evenly. And the heating and fermenting processes are of course aided by this air-tight wooden construction.

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Complete Dispersal

47 Pure-Bred HOLSTEINS

(Accredited Herd)

A herd bred and selected for ECONOMICAL PRODUCTION

Note this sample



Catalog No. 3.

C. T. A. record—
Fat, 1 year, ... 578.4
Milk 17,094.3
She is sired by a grandson of King Sogin
Two of her daughters and one son also in the sale.

Sale starts at 1 P.M. sharp
(Held under cover at the farm.)

Thursday, March 20, 1930

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302 Third St., Liverpool, N. Y.

Send for free descriptive circular.

The Story of Woodbine Farm

By W. D. ZINN

CHAPTER X

1912 the University of West Virginia employed Professor C. R. Tidlow, of Ohio, as Director of Agricultural Extension work in the State. Under his enthusiastic leadership an extension program for agriculture was outlined and subsequently put into effect which was second to no other state. As a part of this program it was decided to undertake an extension program in agriculture to interest farmers and business men in employing a man in each county who would devote his entire time to the interests of the agriculture of the county.

At a beginning in this movement, a man was lent to the Chamber of Commerce of Charleston in finding a man to undertake the work in Kanawha county. Mr. E. B. Zinn was finally chosen and qualified himself as the first county agent in West Virginia. The following letter written in response to a request for information of his early experiences in this work is of especial interest in connection.

Early Experiences
March 25, 1927

W. D. Zinn,
West Virginia.

Dear Sir:
In receipt of your letter of March 1st I am pleased to know that you are preparing a book covering the history of the county agent work in West Virginia. The first thing I did when I arrived in Kanawha county, as I had not had any experience in county agent's work, was to secure a horse and saddle and go through the mud and hills of Kanawha county and study farm conditions. I found that at the same time getting acquainted with the farmers and their boys and girls. That time in the United States Department of Agriculture, through the Office of Farm Management, furnished me with blanks which asked various questions about the farm operations, farm expenses and profits. These blanks were in questioning farmers and, after being filled out, the farmer was asked to

remember well one incident that I had in my first efforts. One day, I had got the information from the farmer and his wife which I desired. I went back to the farmer to sign the blank. He stated that there had been a shipment of books and a bill for them. I did my best to convince him that I was not a book agent, but he refused to sign the blank until I gave him the information concerning his

quite a job securing the interest and cooperation of the farmers in the county, as the work was entirely new and no one had ever heard of a county agent. At that time I was known as the farm expert and not county agent. I had to explain to the farmers that I was not a county agent, but a man who was sent to the county for a few months, and then to get quite a little publicity from the local papers as county agent. I began to receive numerous letters and invitations to visit nearly every farm in the county which, as you know, is an impossibility.

I know from your experience in Kanawha county that real orchard men are not every little orchard owner was interested and wanted me to assist in the spraying work. This I did and I could and found this a good end result.

I started work in this county six months ago and was selling about sixty to eighty dollars per ton of fertilizer. It was being used, even though it was badly needed to grow most of the crops. This material was selling for twelve to fifteen dollars per ton.

The work was started in this county there were no dairies. The few that were producing milk were doing so under conditions in and around the dairies which were intolerable. I am a milk drinker, but after I saw the conditions under which this milk was produced I was a total abstainer. I saw that at that time, and now have, a few dairies showing the conditions around the barns or so-called dairy barns. The great obstacle confronting me at that time was to get the cooperation of the farmers. This was gained by personal visits and by treating each person and each farm with the proper respect and keeping word and dates to the letter. I do not know whether the above information will be of any value to you or

Sack-of-Silage just what your cows need now

AND they need it all year, too. During winter months in place of pasture. In Spring when silage gets low. In Summer when pastures are "tired."

Succulent, palatable Sack-of-Silage keeps cows happy, and the milk pail full—at surprisingly low cost.

More digestible nutrients, more lime, more bulk than wheat feeds,—Sack-of-Silage is a wonderful conditioner because of its combined laxative and toning-up effect on your entire herd.

Get more milk now, and at the low cost which makes profits.

Since 1842 four generations of the Eshelman family have been in the feed business. The men who make Eshelman feed for you are most of them farm-raised. They bring a knowledge, an interest, a pride to their work—which produces better feed.



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ESTABLISHED 1842
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25¢
cow book
FREE
please send me one.
I am also interested in:
☐ hens ☐ horses ☐ hogs.



1400 acres of most fertile soil. Small fruit plants and ornamentals our specialty. Healthy, vigorous stock.

Viking Red Raspberry—Latham Red Raspberry—Van Fleet Red Raspberry—Youngberry (Young Raspberry)—New Logan Black Currant—more resistant to mosaic—Gallia Beauty Apple—red strain of Rome.

These outstanding new varieties are the best of the standard kinds and are fully described in our new catalog.

EVERGREENS—Beautiful your Evergreens—Flowering Shrubs—Roses—Perennials and Hedge Plants. Our assortment of varieties is complete and prices reasonable.

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SEED OATS—Fulghum, early red. Gopher, early white. Miami and Big Four, mid-season varieties. Also, Odecker and Beardless.

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Quality Seed Corn our specialty. Complete line of Clovers, Grasses, etc. Send for Free Copy of our Catalog. Everything for Farm and Garden.

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SENSATION—One of the most productive oats to cultivate, 75 bu. and upward per acre are frequent, with large, white, moist grains weighing 44-46 lbs. per measured bu. of the highest quality. We are making an exceptionally low price in quantities. You should by all means try these oats. Also Early Clover and White Cap Seed Corn, Barley and Smooth Harley, Soy Beans and Sweet Clover. Write us for samples and prices.

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Bonus for Live Rats

25¢ plus your money back if Tempto Rat Killer fails to get them all. ONLY KIND, not a snail or other poison. Harmless to anything but rats and mice. Tests die outside. Send no money—just your name to Imperial Labe, 1002 Coca Cola Bldg., Kansas City, Mo. for a large \$2.00 Farm Size pkg. (makes 200 baits)—for only one dollar, on 12-days' trial. If there is a live one left, the dollar you paid the postman (with postage) will be cheerfully refunded, plus 25¢ for your trouble. You risk nothing, so write today.

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Since father was a boy Stover Good Engines have been famous for their built quality. Materials, construction, workmanship, all of the best. Users appreciate their superiority.

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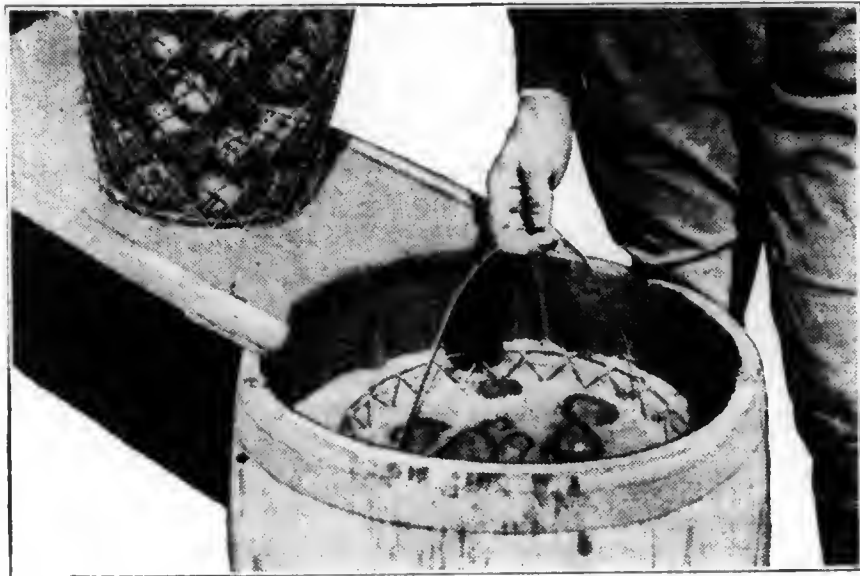
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**Semesan Bel saves time and labor
Produces vigorous stands
Increases yields**

Safe seed potato treatment to kill surface seed-borne disease organisms is a highly profitable practice. Yield increases and improved crop quality have shown this beyond doubt.

But seed potato treatment need not be an all day job. If you have been using old soak methods—wasting an hour and a half to two hours on one lot of seed—you should know about Du Bay Semesan Bel, the safe and effective one-minute dip disinfectant.

Instantaneous treatment

Semesan Bel is instantly applied to seed. No hot water or time-wasting soaking. Just dip the seed potatoes and plant. With this rapid method, one man alone can easily treat as much as 400 bushels of seed a day.

Increases potato yields

By controlling surface-borne infections of rhizoctonia, scab and black leg, Semesan Bel produces vigorous field stands, improves crop quality and increases the yield per acre.



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REG. U. S. PAT. OFF.

Instantaneous Seed Potato Dip



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Please send FREE Semesan Bel pamphlet.

Name.....
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CERESAN for
Seed Grains and Cotton

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ADVERTISERS in Pennsylvania Farmer want your business. They want to give you satisfactory service and aim to please you. When writing advertisers, tell them where you saw their advertisement. You will do them a favor, as well as help yourself and Pennsylvania Farmer.

not, but if it is I give it to you for what it is worth.

Very truly yours,
E. E. Ezell.
Second County Agent

Some time later the second county agent, H. S. Vandervort, was employed in Wood county. The following letter from Mr. Vandervort is self explanatory.

Morgantown, W. Va.
July 9, 1924.

Mr. W. D. Zinn,
Phillippi, W. Va.
Dear Mr. Zinn:

During the summer of 1912, a number of the business men of Parkersburg, through their Chamber of Commerce, became interested in better agriculture for Wood county, and especially in a better understanding between the town and country people in Wood county. They called upon the Director of Extension and the U. S. Department of Agriculture to give them assistance in working out this problem.

The Extension Department and the U. S. Department of Agriculture recommended that they cooperate and use funds from the Chamber of Commerce, and U. S. Department of Agriculture to employ a county agent.

An arrangement was worked by which the Board of Commerce appropriated, in cooperation with the Department of Agriculture, sufficient funds to pay a salary of \$125 a month and traveling expenses of the county agent. I was selected for this position and began work on December 1, 1912. The first thing worked out was the selection of influential farmers and business men as an agriculture committee. This committee outlined plans and worked out a plan of work for advancement of agriculture in Wood county.

The success of the work in Wood county was due largely to the agricultural committee, and especially to its chairman, Judge Reese Blizzard. Every member took great interest in arousing the desire for better agriculture in the county. I was able to reach a large number of people through these local committeemen. The first work consisted largely of getting more silos, better feeding practices, proper drainage and proper care of orchards.

Work in the county has been growing very fast, and it has been largely accomplished because of the fact that the town and county people realize that the county agent and Farm Bureau work together for the betterment of the county. As a whole the Parkersburg Board of Commerce has always cooperated and it has been possible to continue the county agent work without interruption since 1912.

Very truly yours,
H. S. Vandervort,
Assistant Director.

The third and fourth counties to employ county agents were Ohio and Brooke. Some years before this was done the Panhandle Agriculture Club had been organized. This comprised the counties of Ohio, Brooke and Hancock, and in 1913 this club hired the author and W. H. Sill to take charge of the work jointly in Ohio and Brooke counties. I was to give instructions in soils, crops and livestock, and Mr. Sill was to look after the horticultural and floricultural end of the work.

What to Do

I knew very little about the duties of county agents when I went into these counties. Before going into the work I wrote one of my superiors asking him what I should do. His reply was, "Mr. Zinn, go up and look around and see what needs to be done, and work at the job that needs doing worst."

I felt that what I should do was to get acquainted with the farmers that I might know their needs. Several months were spent visiting farmers, inspecting farms and holding meetings in central places. One thing that impressed me was that in this very hilly country farmers were plowing entirely too much. This was a bluegrass country and better adapted to grazing than to farming. But if livestock were kept something must be grown with which to winter them.

Lime being abundant and cheap I decided that farmers alfalfa. This plant had been tried on perhaps less than a dozen farms in the two counties, but in most cases the attempt to grow alfalfa had been successful. The matter of putting on an alfalfa campaign was brought to the attention of the club, and it was voted unanimously that the agents should bend their energies in that direction.

I was 125 miles away from my home, and could get home only every

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More Money with a
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ROSS METAL SILO
Keeps ensilage sweet—no freeze troubles—no shrinkage—no swelling—fire-proof—wind-resistant—twisting—collapsing—easily made higher—lifetime satisfaction—Free book—"Users Own Words" written by 250 satisfied Ross owners.
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In treating all lamenesses, while horse works 1,000,000 users endorse humane, guaranteed
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FREE! Send now for the greatest horse book ever given away. Tells how to locate and treat all lamenesses. Book, sample guarantee, and proof that "Save-the-Horse" makes good, all sent free. Write today.
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Ask your druggist—or order direct.

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WANTED.—Hay, Grain, Potatoes, Apples, bage, Onions, Carrots, etc. Pay highest prices. Alfalfa hay, clover hay, for sale. Reasonable prices. The Hamilton Co., New York.
WE BUY or HANDLE on commission, all hay and straw. George E. Rogers & Co., 1000, Pittsburgh, Pa.

To know what to buy—the advertisements. They keep you informed of the latest and best products of the manufacturers. Their aim is to meet your needs. You will find the time spent in reading the advertisements is time well spent. Read them regularly, with care and when answering, mention Pennsylvania Farmer.

PLEASE say: "I saw this ad. in Pennsylvania Farmer"

Makes Money Twice a Day

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for 15 to 30 Years

A good cream separator is the most profitable machine on the farm and a

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is the best separator in the world. That's why there are more in use than all other makes combined.

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Please send me, without obligation, full information on (check which)
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Storm-proof!
The Economy Silos are built to last. Patented Storm Proof Anchor equipment is supplied with each silo. Prevents tilting—twisting—collapsing. Storm-proof and permanent. Equipped with either the continuous small self-adjusting doors, or swinging hinge doors.
Economy Silos are made of best grade Oregon Fir or Long Leaf Yellow Pine. Also silos of Glazed Tile and Cement Stave. Send for free literature. The Economy Silo & Mfg. Co., Dept. A, Frederick, Md.

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GREATEST VALUE—LOWEST COST
Great metal roofing, shingles, Spanish tile, etc., DIRECT from the world's largest manufacturer of sheet metal building materials, at EDWARDS. Thousands of satisfied users. Many varieties. Edwards metal roofs last long, lighter, fire and lightning resistant. Best roof, fire and lightning. Also, SHINGLES, etc., of COPPER BEARING metal. This steel stands the test of time. Write for literature. No. 1201 and for Garage Book.
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On sturdy HARDER stave silos. Many in use for 25 years are still strong and good for many more years.
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two weeks. After some months I decided I could not afford to be away from my farm so much, so I resigned, thinking I would quit the county agent work. I was sorry to leave these good friends, for during that time I had formed friendships that were very pleasant, but I am glad to say they still exist, for once in a while I get back to Ohio and Brooke, and renew these ties.

A Second Appointment

No sooner had I returned home than the Extension Department asked me to be county agent in Barbour and Randolph counties. Barbour county being my home county it seemed much easier to me to undertake the work, so I accepted a second appointment. I was to spend one week in Barbour and one in Randolph. Later Randolph county was dropped so that I could have more time at home. I was really enjoying my work, and feeling that I was getting something done. The truth was I was giving more than half my time, for I was in the field three days, and did my office work and kept up my correspondence at other times.

Up to this time Harrison county, which joins Barbour, had had no agent. They had effected an organization, and for a year had been looking for an agent. The executive committee consisted of F. B. Davison, Harvey Harmer, John D. McReynolds, Jackson Arnold, C. P. Hood, Howard Gore (later Governor), J. S. Pigott, Burgett Swisher, and one or two others.

This body sent a committee up to Barbour county to see if it could induce me to take the work in Harrison county, for I was thinking of closing my work in Barbour soon, and giving all my attention to my farms, which at that time began to show that they needed closer supervision.

(To be continued.)

Kudzu

Would like to ask of the relative value of kudzu which Charles Leach of Florida claims you recommend.
Harvey Miller.

I HAVE spent more time answering letters relative to kudzu during the last eight or ten years than any other one plant. I received 157 letters in one week, and that was the next week after Mr. Leach wrote his article on "Kudzu Better than Timothy." He and I had a lengthy correspondence over the matter and in one of his letters he intimated that I did not know anything about kudzu and offered to send me some roots. In reply to this letter I said that kudzu was growing all around Phillippi for an ornament under porches and houses where it was protected from the hard freezing of the winters. Mr. Leach omitted part of what I wrote him and quotes me as saying, "Kudzu is growing all around Phillippi." Had he quoted me in full this ad would not have been worth anything to him. In almost every letter I wrote him that I did not believe kudzu would do any good in the North. I leave it to my readers to decide whether he treated me fairly.

Director C. G. Williams of the Ohio Experiment Station told me personally that they had tried it at the Station and it winter killed each time. It, no doubt, does well in the South, but so do oranges and lemons, but I have never heard of farmers growing oranges and lemons in Pennsylvania.

Letters are coming to me from the Middle West and from the East quoting what I have said about kudzu in Mr. Leach's circular. To all these inquiries I have said that Mr. Leach failed or forgot to tell the whole truth. If any of my readers in the North have invested money in kudzu on my so-called recommendation and have lost it I am sorry. My object in writing this article is to repudiate the so-called recommendation and to give the facts in regard to the matter.

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YOU could cut your dairy feed down to hay and silage, and still get a certain amount of milk. But profits come from getting all the milk the cows can produce.

A dairy herd working part time or producing below capacity is like a factory with part of its equipment idle. If it pays to feed cows at all, it pays to feed the best milk producing ration obtainable.

That is why so many dairymen feed Gold Medal Dairy Ration. It makes money for them. The consistent quality of Gold Medal keeps cows in good shape for continuous high production. The extra milk is extra profit every week, and every month, consistently.

The Gold Medal "Farm-tested" formula is based on years of research and experimental work. The ingredients are selected and blended with the utmost care and skill, for Gold Medal Dairy Ration is made by the makers of Gold Medal "Kitchen-tested" Flour.

Your cows deserve Gold Medal, because it lets them do their best, and that means that you get a bigger milk check.

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Please send me free copy of book "More Milk—More Money".

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Farmer's Business Letter

THE employment situation may be improving, as reports from Washington state, but none the less there is a decided feeling in livestock trade that demand for meats has been seriously curtailed by the large number of people out of work.

Livestock Marketing
Organization of a livestock marketing association was started in Chicago this week at a meeting of representatives of the Federal Farm Board and leading cooperative livestock marketing associations.

The plan, accepted by certain of the cooperatives, calls for the incorporation of the National Livestock Marketing Association, with a capital stock of \$1,000,000, to operate on a basis similar to that of the grain marketing corporation. Two subsidiaries, the National Feeder and Finance Corporation, and the National Livestock Publishing Association, also were planned.

The project will be submitted to the boards of directors of the various cooperatives for approval before it is put into effect.

Light Demand for Beef

Greatly reduced receipts helped to hold the cattle market up this week. The run here was only 35,000 against 42,000 last week, and the combined total at leading markets was correspondingly reduced for the week.

Demand for beef continued light. Beef to the consumer is high, and sales are affected by reduced employment. All kinds were some lower this week except the best grades of steers, and they were scarce. A top load of light steers brought \$15.75, highest in some time. Average price of steers for the week dropped to \$12.25, against \$12.50 last week.

There has been some increase in the movement of feeder cattle, indicating that producers have confidence in the future. But relatively cheap feed favors feeding.

Hogs Fluctuate

The hog market this week was featured by sharp reductions and sharp advances, the latter about offsetting the former, as shown by the fact that average price for the week, at \$10.80, was the same as last week, but a nickel below a year ago when prices were working upward.

Receipts at eleven markets this week totaled 600,000, against last week's very light run of 578,000. Light marketing and prospect of the same favor higher prices, but demand for product has been showing weakness resulting in buying caution.

So far this year eleven markets have received 5,701,000 hogs, against 6,117,000 on the same date last year, and 7,339,000 two years ago.

The hog futures market opened today with quite a program of speaking, and a large attendance of interested spectators. There were scattering quotations. Reports on futures prices will be available next week.

Lamb's Again Lower

Lamb prices dropped off as much as a dollar more this week. Tops for the week opened at \$11.70 and dropped off steadily to \$10.50 on Thursday, with some recovery later.

Receipts were a little larger than last week, 79,000 here this week against 72,000 last week and 70,000 a year ago. Average price of lambs dropped to \$10.45, against \$11 last week and \$16.45

a year ago.

The general average price of lambs for February at \$10.55 is lowest since December, 1921. Barring the year of 1921, the average goes back to October, 1916, for a lower average. At a low point in 1921 the monthly average was down to \$8.55 in October. The year's average in 1921 was \$9.85. Previous to 1915 all monthly averages were in 3 figures.

Lamb from the corn belt made up most of the increase in February. Shipments from leading states in the West are running only slightly larger than a year ago and smaller than two years ago, but they have plenty of lambs to come. About the best that can be said for lamb just now is that it is cheaper than pork or beef, but that does not relieve the heavy losses of feeders.

Board Features Wheat Trade

Farm Board operations in wheat are so involved that probably not even the Board's experts know just what moves they will make next, or can interpret intelligently the effect of what already has been done.

Produce Market Quotations

PHILADELPHIA

Butter.—Higher than extras, 37¢40¢; 90 score, 34¢.

Eggs.—Extra firsts, 29¢; firsts 27¢; seconds, 25¢.

Poultry.—Live, fowls, 24¢29¢; chickens, 25¢32¢; old roosters, 21¢24¢; pigeons, pr. 38¢40¢; ducks, 20¢28¢; turkeys, 25¢36¢.

Fruits.—APPLES, N. J. Md. Deln. & Pa. bu. baskets, Yorks, \$1.50¢2; Grimes Golden, \$1.50¢1.75; Stayman, \$2¢2.25.

Vegetables.—BEANS, Fla. bu. hmp. wax, \$2.75¢3.50; BEETS, Pa. & N. J. ¼ bkt., 25¢40¢; ONIONS, N. Y. yellow, 100 lb. sack, \$1.50¢1.85; Carrots, N. J. & Pa. ¼ bkt., 40¢65¢; CELERY, Pa. & N. J. bunches, 12¢15¢; TURNIPS, Pa. & N. J. ¼ bkt., 25¢45¢; POTATOES, Pa. 100 lb. sack, \$2.50¢2.75; SWEET POTATOES, N. J. ¼ basket, 90¢\$1.10; MUSHROOMS, Pa. & Dela., 3-lb. bkt., whites, 85¢\$1.15; PARSNIPS, Pa. & N. J. ¼ bkt., best, 60¢75¢.

NEW YORK

Butter.—Creamery, higher than extras, 34¢35¢; firsts, 31¢33¢; seconds, 29¢31¢.

Eggs.—White, nearby, average extras, 33¢; mediums, 34¢.

Poultry.—Live, by freight, fowls, 23¢32¢; old roosters, 18¢; geese, 15¢; ducks, L. I. spring, 25¢; turkeys, 30¢40¢.

LANCASTER

Butter.—Country butter, 50¢55¢; creamery butter, 45¢50¢.

Eggs.—Fresh, 30¢31¢.

Dressed poultry.—Chickens, \$1.25¢2.50 each; springers, 75¢\$1.25 each; ducks, \$1.50¢2.00 each; squabs, 25¢35¢ each.

Fruits.—APPLES, 20¢30¢ ¼ pk. CRANBERRIES, 25¢ per lb.

Vegetables.—ASPARAGUS, 20¢25¢ per bunch; BEANS (string), 30¢35¢ ¼ pk. BEETS, 5¢10¢ bunch. BRUSSELS SPROUTS, 25¢30¢ ct. CABBAGE, 10¢20¢ head. CARROTS, 5¢10¢ bunch. CAULIFLOWER, 20¢35¢ head. CELERY, 10¢20¢ bunch. CUCUMBERS, 10¢15¢ each. EGG PLANTS, 20¢30¢ each. ENDIVE, 5¢10¢ head. LETTUCE, 10¢20¢ head. MUSHROOMS, 25¢30¢ per pt. box. ONIONS, 20¢25¢ ¼ pk. ONIONS, 10¢ bunch. POTATOES (red), 15¢20¢ (new), 35¢ ¼ pk. (old), \$1.75¢2.00. POTATOES (sweet), 25¢30¢ ¼ pk. PEPPERS, 35¢ each. PARSLEY, 20¢35¢ bunch. PEAS, 30¢45¢ ¼ pk. RADISHES, 10¢ bunch. RHUBARB, 10¢15¢ bunch. SPINACH, 15¢18¢ ¼ pk. TOMATOES, 25¢30¢ pint box. TURNIPS, 15¢ ¼ pk.

March 8, 1930

By heavy buying, through its subsidiaries, the Farmers National Grain Corporation and the Grain Stabilization Corporation, the decline in wheat prices was checked, and some recovery was effected. And it appears that through these operations, some time, rather than farmers, have made big profits, and further that unless the Board is able ultimately to sell the wheat at the price it has paid, Uncle Sam will foot the bill. Frank J. Taylor, chairman of publicity for the Omaha Grain exchange, charged that "the government has entered the field of wheat speculation by action of the federal wheat stabilization corporation in buying options in the futures market."

Stating that the "laugh is now on the government," Taylor called attention to "years of time and barrels of printers' ink" used by the government in criticism of grain exchanges and futures trading, ending in its own funds being used for that purpose.

No report of the price trend has much significance at this time, since the law of supply and demand has been nullified for the time being. The great experiment is under way and the outcome will be watched with interest. Chicago, March 1, 1930. Watson

YORK

Butter.—Country, 45¢50¢; separator, 41¢55¢.

Eggs.—Fresh, 30¢32¢.

Poultry.—Hens, live, 28¢32¢ per lb. Leghorns dressed, \$1.25¢1.50 each; heavy, \$1.50¢2.25 each.

Fruits.—APPLES, 10¢30¢ ¼ pk. Stayman, \$1.75¢3 per bu. Yorks, Grimes Golden, \$1.25¢1.50 per bu. CABBAGE, 10¢15¢ head. LETTUCE, 10¢20¢ head. OYSTERS, 8¢10¢ doz. TURNIPS, 10¢13¢ ¼ pk. SPINACH, 15¢20¢ ¼ pk. CELERY, 5¢15¢ per stalk. PARSLEY, 20¢30¢ per bunch. SWEET POTATOES, 15¢20¢ per quart.

PITTSBURGH

Butter.—Creamery prints, 92 score, 41¢; tubs, 40¢40¢; local tubs, 37¢41¢.

Eggs.—Select white, 27¢30¢; brown, 24¢26¢; current receipts, 24¢26¢.

Poultry.—Live hens, heavy, 28¢30¢; Leghorns, 27¢29¢; springers, heavy, 24¢26¢; Leghorns, 20¢23¢; roosters, 18¢19¢; ducks, 25¢28¢; pigeons, 40¢50¢ per pair.

FEED MARKET

The following quotations are for trade and nearby shipment February 28, according to the U. S. Bureau of Agriculture. Economies. They show the approximate cost of feed per ton (all in 100-lb. sacks) and grain per bushel in carlots arriving draft basis delivered on truck at Philadelphia and Scranton rate points:

Bran, \$31¢35¢; standard middling, \$30¢35¢; floor, middlings, \$34¢; cottonseed meal, 43¢ per cent, \$13.50; gluten meal, \$36.50; No. 2 white oats, 54¢; No. 2 yellow corn, \$1.

HAY AND STRAW

Philadelphia quotations.—No. 2 timothy, \$18.50; No. 3 timothy, \$15.50; sample hay, \$13; No. 1 mixed clover, \$18; No. 2 mixed clover, \$15.50.

CHICAGO CASH GRAIN

Chicago, Ill., March 3.—The following prices ruled here today: No. 2 hard wheat, \$1.09½; No. 3 yellow corn, 80½¢; No. 3 mixed corn, 79¢79½¢; No. 2 white oats, 43½¢44¢.

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at prices that save you a lot of money, then send for this New Drew Line Barn Book today.

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Drew Line has helped farmers save money on good reliable Barn Equipment for more than 30 years. If you are looking for the kind of Barn Equipment that you can always depend on—the kind that gives years of satisfactory service—then don't delay—send the coupon now.

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The new Drew Line Barn Book contains 120 pages, showing all types of Barn, Hog House and Farm Building Equipment. It also tells about the Drew-Service Plan Service for farmers who expect to build or remodel. The cost of Drew Line Equipment is so reasonable that every farmer can afford to have the convenience and money-saving advantages of modern up-to-date Barn Equipment. Check the items in which you are interested and mail the coupon for this valuable FREE Book now.

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Philadelphia Produce Review

THE Philadelphia egg market opened in a very weak and unsettled condition with all grades undergoing drastic price declines. Unusually warm weather which occurred throughout most of the country no doubt had some bearish effect on the market. The sharp reduction in quotations and the heavy arrival of goods created a nervous situation and buyers were reluctant to operate beyond immediate requirements.

Toward the middle of the week a steadier tone developed but in some quarters a degree of uncertainty was manifest. Some Southern stock was available at slight concessions, however, eggs of fancy quality brought small premiums and were fairly well cleared. At the closing of the week trading slowed up somewhat as most channels were overstocked. Refrigerator eggs were scarce with most sales reported at irregular quotations. Practically all outlets were working on fresh eggs.

Receipts in New York were liberal during the latter part of the week and the market developed a weaker tone. Most trade channels were overstocked. White eggs were very irregular in price and dealers were anxious to find a price level that would induce more active trading. Nearby white eggs were quoted at 29¢33¢ per dozen, mixed colors at 21¢29¢ and brown eggs at 30¢32¢.

Poultry Active

The New York live poultry market was more active during the latter part of the week. Receipts of nearby fowl were light in supply and sold readily. Chickens met a good demand and broilers were active with prices advancing. Old roosters and geese were also wanted. Cooled fowl were quoted at 35¢ per pound and Leghorns at about the same level. Chickens ranged from 28¢32¢ and broilers at 36¢42¢.

Dressed poultry was dull with fowl more than ample for trade requirements. Some holders were cutting prices in an effort to reduce stocks on hand. Dressed hot house broilers were in light supply, and sold readily when fancy and well graded. Prices on this stock ranged from 25¢46¢ per pound depending on quality.

Potatoes Dull

The potato markets were generally weak and dull during the week with liberal supplies. Prices have declined both at shipping points and at terminal markets and growers are again reducing their shipments. There are some who believe that prices have reached the bottom but there does not appear to be much chance of a quick recovery.

Whenever prices at shipping points drop this season the shippers and growers are reluctant to sell and with lighter shipments the market improves. Prices at Maine shipping points are now around \$2.00 per 100-pound sack f. o. b. and around \$3.40¢3.50 per 150-pound sack at New York points. In Philadelphia round whites from Pennsylvania jobbed at \$2.25¢2.65 per 100-pound sack and at \$2.25¢2.75 in Baltimore.

Apples Weaker

The apple market has shown a weaker tendency during the past week. The warm weather is blamed for the increase in scalded apples coming out of cold storage. This has been very noticeable the past week. Dealers report that it is more difficult to sell apples above \$2 per bushel although some good stock still sold around \$2.50. Rome sold at \$1.75¢2.25 per bushel in Philadelphia. Stayman at \$1.50¢2.50. Yorks, Nero and Grimes Golden at \$1.25¢2 and Ben Davis at \$1.15¢1.50.

Sweet potatoes were quiet in most all markets. The warm weather was partly responsible for the lack of demand. New Jersey stock sold at \$1.25¢2 in New York city with a few bright fancy lots higher. The movement in Philadelphia was very slow with prices generally around 75¢\$1.10 per ¼ baskets. Reds were relatively weaker than yellows. W. R. W.

LIVESTOCK

PITTSBURGH

Cattle

Supplies continue light and the demand is lighter than usual because of the advent of Lent. Only 30 carloads were offered on Monday. Buyers bid below last week's prices on the better classes of steers but finally paid about the same as then. Common to medium light butcher steers looked a little stronger. Two carloads of long-fed heavy steers brought \$13.60, a dime more than last week's top, but they were thicker than anything here then. A few steers brought \$13.25, well-finished but not weighty, and good fat hinds and weights went at \$12. Very useful killers with weight could be had at \$12.50¢12.75. Useful fleshy butcher steers brought \$11.75¢12.25, and ordinary kind with some flesh \$11¢11.25. Not many heifers were here. A couple of choice yearlings brought \$12.60, but few were good enough to sell at \$11 or better. Fat cows were weaker, with fat cows \$8.50. Choice heifers, little change. Bulls were lower, with few above \$9, though an occasional heavy butcher bull would bring more. Bulk of bologna bulls went at \$8¢8.50.

Prime fat steers, 1300 lbs. or over, \$12.00¢13.00. Choice steers, 1200 lbs. or over, \$12.00¢13.00. Good to choice, do., \$12.00¢12.50. Fair to good, do., \$11.00¢12.00. Plain heavy steers, \$11.00¢12.00. Choice handy-weight steers, \$12.00¢13.00. Good butcher steers, 1000 to 1150 lbs., \$12.00¢12.25. Fair to good, do., \$11.00¢12.00. Ordinary to fair, do., \$10.00¢11.50. Common, do., \$10.00¢10.50. Good light butcher steers, \$11.75¢12.25. Fair to good light steers, \$11.25¢11.75. Common to medium, do., \$10.50¢11.25. Inferior light steers, \$9.00¢10.00. Feeders, \$8.00¢9.00. Stockers, \$8.00¢11.50. Choice fat heifers, \$10.50¢11.00. Good to choice heifers, \$9.75¢10.50. Fair to good heifers, \$9.00¢9.50. Common to fair heifers, \$8.00¢9.00. Choice fat cows, \$8.75¢9.00. Good to choice fat cows, \$8.25¢8.75. Fair to good cows, \$7.50¢8.25. Common to fair cows, \$5.50¢6.50. Canners, \$5.00¢15.00. Fresh cows, good at all times, \$8.75¢9.00. Choice heavy bulls, \$8.50¢9.00. Choice handy butcher bulls, \$8.50¢9.00. Choice heavy bulls, \$8.50¢9.00. Fair to good bulls, \$7.50¢8.00. Common to fair bulls, \$6.50¢7.50. Inferior bulls, \$6.00¢6.50.

Monday's supply was about 30 double-deck carloads. The market was active and 15¢20¢ higher than last week's close. Some plain Iowa hogs were on sale and they

With about 550 calves on sale trade was good at \$15.50 for tops, \$11¢13 for seconds and \$8¢10 for culls.

Calves

Good to best weathers, \$6.75¢7.25. Good mixed, \$6.50¢6.75. Fair to good, do., \$5.75¢6.50. Common to fair, do., \$4.50¢5.50. Inferior sheep, \$3.00¢4.00. Good to best lambs, \$11.00¢11.25. Medium lambs, \$10.00¢10.50. Culls and common, \$8.00¢9.50. Heavy lambs, \$9.50¢10.50. Clipped sheep, \$3.00¢6.00. Clipped lambs, \$7.00¢10.00.

Cattle

Lancaster, March 3.—With 150 head of cattle on sale the market was generally show. Steers and yearlings were steady, brought \$11.25 and best clipped lambs \$10 per cwt. Not many choice lots of either kind were offered. Heavy lambs sold largely at \$9.50¢10 with wool on, a few not much above \$9 lbs. \$10.50. No spring lambs have appeared.

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Hogs

Eleven hundred head made up the supply of hogs. The market was steady. Best hogs in the 160 to 200-lb. class brought \$12.75.

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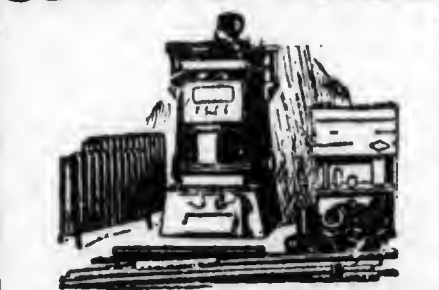
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PENNSYLVANIA FARMER

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Weekly

Established
1877

Consolidated with PENNSYLVANIA STOCKMAN and FARMER

March 15, 1930



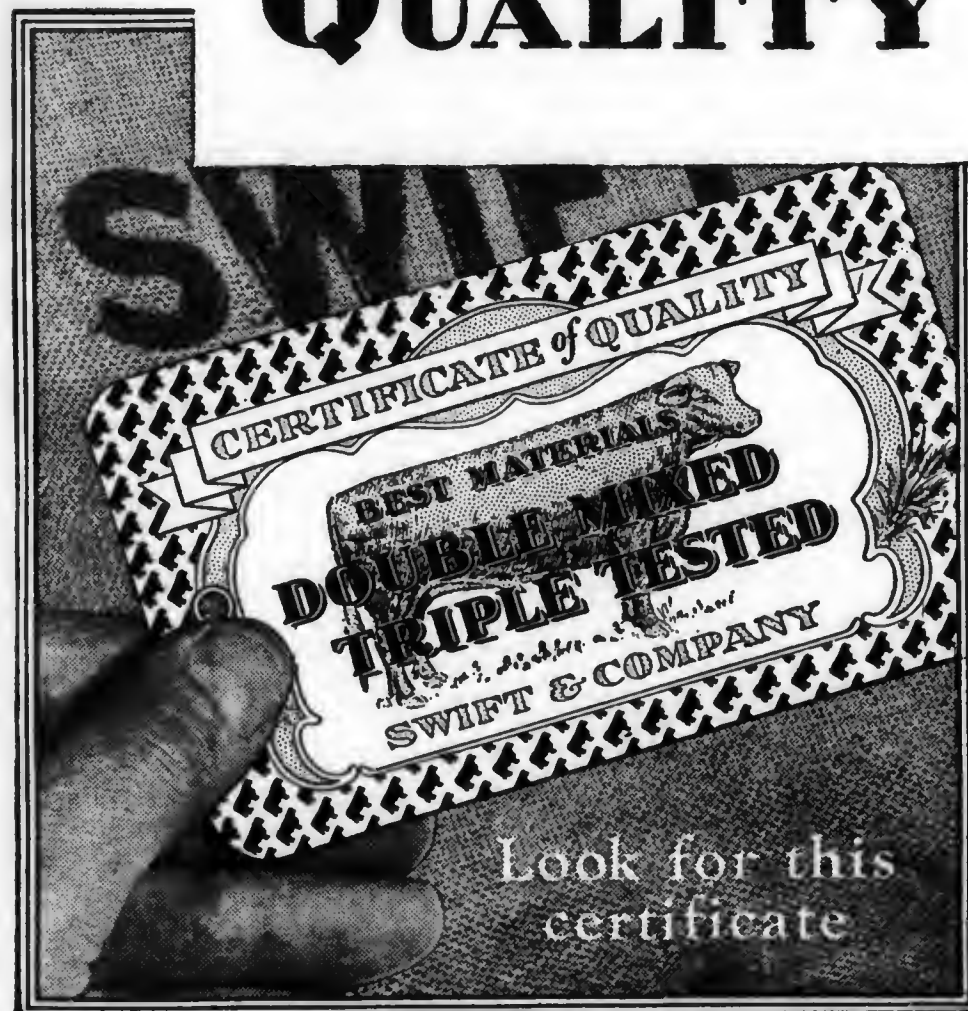
Royal Palms near Havana, Cuba, seen by members of the Pennsylvania Farmer Florida-Cuba Tour

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BEST MATERIALS—DOUBLE MIXED—TRIPLE TESTED

Farm Facts and Fancies

By ALVA AGEE

THE American Indian was a true scientist in fertilizing corn. He put the fish into the hill where the plant would start life. We might tell him that the roots would spread through the soil and should be able to get food most anywhere, but he knew where the limited amount of fish he would use should be placed.

Doubtless he could have grown better corn if he had used double the amount of fertilizer and placed some between the rows, and yet even then the question is whether the extra portion would not have given more corn if it too had been placed near the plants when making their first growth. The answer would depend on the amount available for use.

When Applying Fertilizer

I am trying to emphasize the fact that a young plant needs food near it, and plenty of it, and when that has been supplied we may be concerned that the rest of the ground should have fertilizer supplied to it. Years ago we criticized hill fertilization, and talked of the spread of plant roots everywhere, but there is evidence enough that it is good practice when done right.

It is all wrong to dump a lot of fertilizer where it cannot be mixed with the soil, and a heavy application in the hill that is not mixed with the soil burns tender plants. There is more injury from this cause than many realize. We have no mechanical means of doing a thorough job of mixing in an area of, say, a foot square, but I think it is a fact that if we did have such means we should find returns from the investment decidedly greater than when the fertilizer is scattered throughout the soil. Theoretically maybe it should not be that way, but practically it probably is that way.

There has been much improvement in planters so that heavy quantities of fertilizer can be safely used in the row. There is not the thorough mixing with all the soil in which the plant forms roots that gives perfect conditions, but we get away from any serious injury to seed.

Fertilizer in the Row

I have known good potato growers who half-believed that the middles between the rows should have been well supplied with fertilizer because they knew that the roots filled the middles when tillage was stopped, but they continued to put fifteen hundred pounds in the row because it paid them to do so. Where the biggest possible yield is wanted more fertilizer is used, and no one questions that it is good practice to broadcast some part of a very heavy application.

Fertilizer Broadcast

It isn't easy to stress any fact and not leave other truth too much out of sight. The need of plenty of fertilizer just where a plant starts life, and where there is a mass of roots later on, does not prevent us from seeing that all the ground should be rich if we can make it so with profit.

The point is that hill and row fertilization for any kind of crop needs no apology—plants like it and pay for it more easily than they do for broadcast food. When the investment in fertilizers is the least limited the returns are biggest from that put near the plants.

Certainly this is true in the experience of potato growers and growers of most, or all, kinds of plants, and the statement appears justified by the results obtained with corn by the Ohio Station.

Termites

"They did work willily." This is the ancient record of the Hittites and Amorites and Jebusites when the

Children of Israel would dispossess them of their land. There is no better description of the methods of our more modern enemy, the termites. They are a menace to buildings from Washington, D. C., to Los Angeles. One kind works in dry wood, finding or making a tiny entrance and then destroying the inside of the sill or studding. Another works in damp wood where a sill or flooring is too close to the ground. The disconcerting thing is that a lot of damage may be done before these pests are detected. The first warning often is the settling of the building as the wood gives way.

The ones working in damp wood are circumscribed in considerable degree by having plenty of air circulation under the building. I secured this by having soil removed, and then a heavy coat of creosote was applied to warn any vanguard away. My neighbors thought I was too fearful, and now inspectors find some of their houses infested, and experts are trying to kill these pests with poisons. A trouble is that a connection between two large cavities within the timber may have been closed by the workers, and the termites are not exterminated.

I suggest that any of our readers who have buildings close to the ground make careful inspection, and personally I have more faith in fresh air and creosote as preventives than experts' treatments as permanent cures. The termites that attack dry wood need expert attention. They "work willily."

Merchant Credit

The U. S. Bureau of Agricultural Economics says: "As in other years cost of merchant credit, especially in the South, continues to be much higher than the cost of other principal forms of credit. For this reason farmers should, whenever possible, use credit from banks or other specialized credit agencies."

There is another reason some overlook, and often a more weighty one than the extra cost of credit. Probably nine out of ten of us find it easier to decide to buy something when the amount will be charged than we do when cash is to be paid, even though we have the money in our pockets.

Installment buying and charge accounts make it difficult today for young people to get ahead and older people to stay ahead. When one knows that he is going to count out the money at time of purchase he has a way of weighing more closely the relative merits of the proposed purchase and the money demanded for it. Then, too, the man who runs an account at a store knows that he can stave off payment of a store bill more easily than a note in bank.

What he needs is aids to doing without when cash capital is small, and a note in bank for absolutely necessary money is a far better check than merchants' credit. He knows exactly what he owes, and when it is due, and the upshot is that he not only gets cheaper credit but he needs less money because he holds back from unnecessary buying. Young farmers especially should think this out and finance their needs outside of merchants' credit.

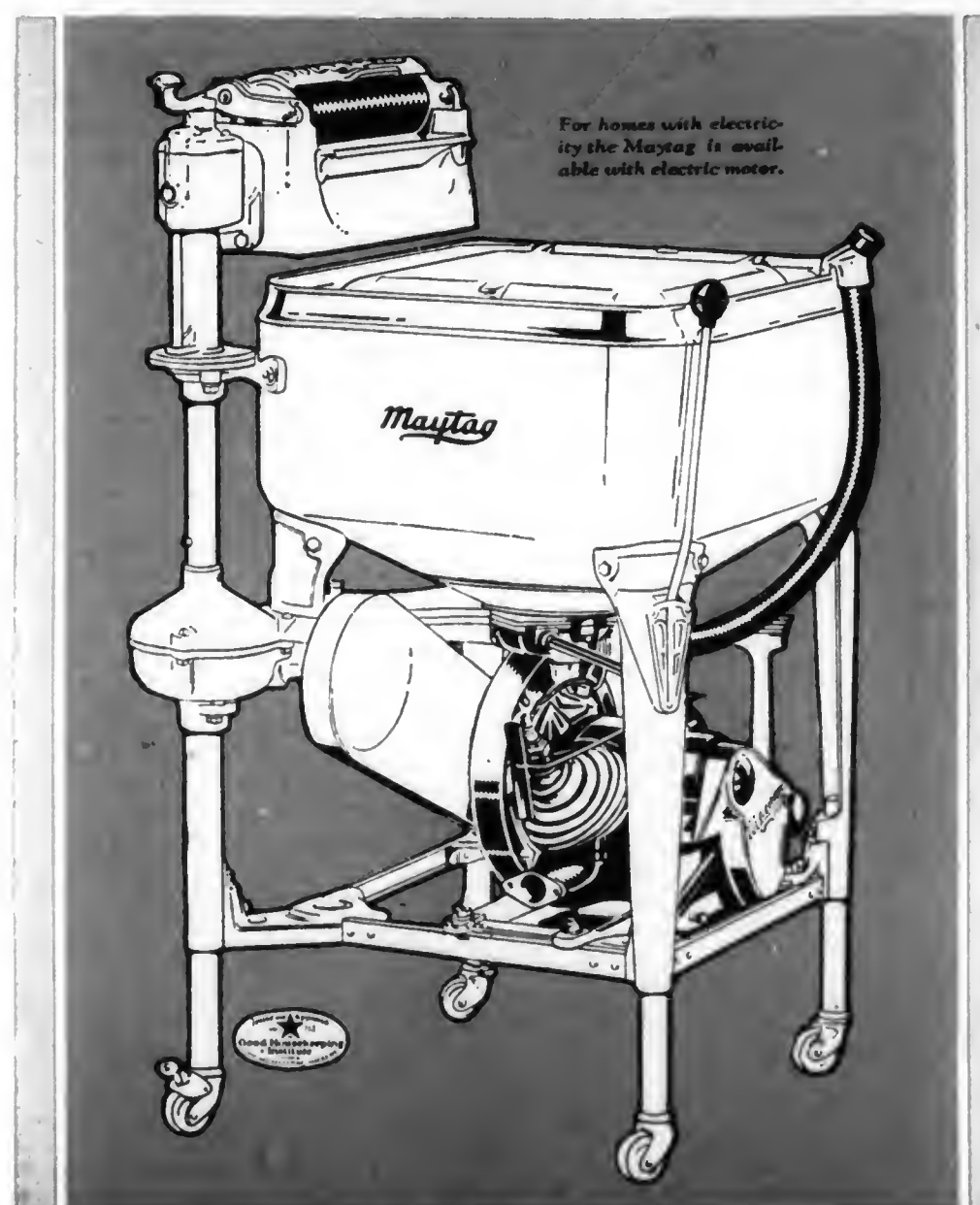
Rhubarb Rules

GROW rhubarb from root cuttings. Fertilize the ground first with plenty of manure or a good garden fertilizer worked into the soil at the rate of a pound for every four plants.

The roots should be covered four inches deep, two or three feet apart in the row and the next row four feet off, if you have more than one row. Fertilize every year at the time of planting. Keep weeds and grass off. Break off flower stalks if they start

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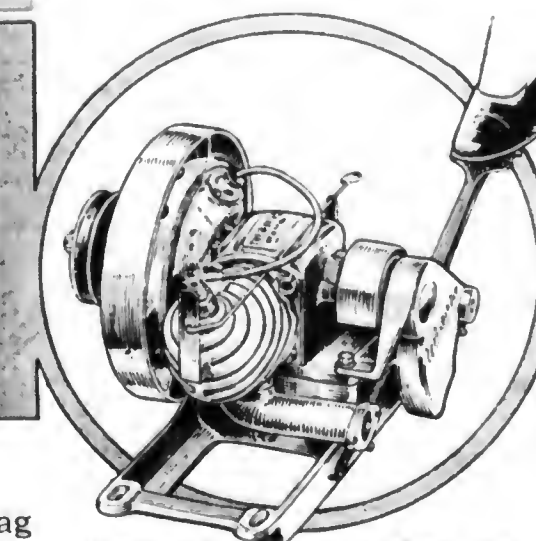
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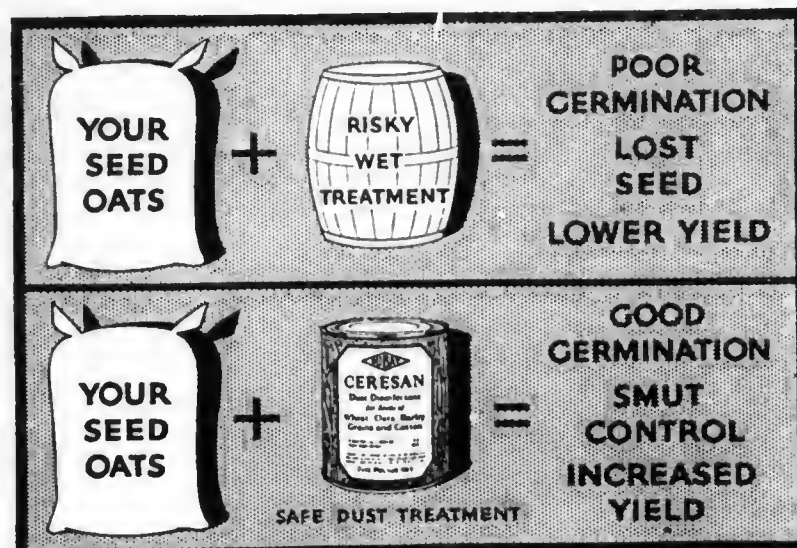
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Now there is an effective new method of seed oats treatment. And one that is safe. Applied by the quick dusting process to seed oats, Du Bay Ceresan kills smut organisms without injuring the seed.

Ceresan Prevents Smut Damage

State and federal crop authorities report that oats damage by smut was unusually severe in Iowa, Missouri, Kansas, Minnesota and Wisconsin in 1929. The preceding year, Iowa alone lost 18,000,000 bushels to smut.

Ceresan can prevent such tremendous losses from loose and covered smuts. Tests have proved it. For example, Wisconsin Circular 133 states that Ceresan has given very good control of oats smuts in that state. The *Plant Disease Reporter* for August, 1929, reported that dust treatment with Ceresan gave "good control" of oats smuts in Iowa, and in Kansas. Ceresan dust treatments gave "excellent control" of oats smuts.



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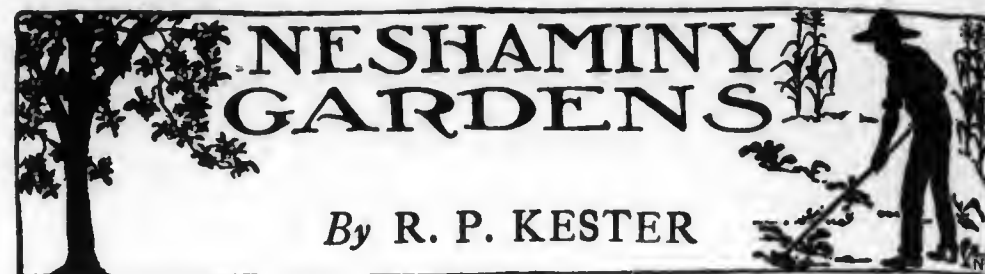
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A WRITER from Allegheny county, Pa., among other things says: "I am going to apply about one pound of nitrate of soda to the 1,000 young apple trees set in the spring of 1928, and I bet they will grow. I am also going to paint the trunks with paraffin."

Yes, a pound of nitrate should make the trees grow. In fact, it is more than I would give them at that age. One-half pound would be a more economical application at that age, and it should be scattered over an area having a radius of five or six feet out from the trunk. The writer also says he is going to apply mulch paper around the trees, because the dry weather last season prevented growth.

I have no information on the use of mulch paper on young trees. But I am of the opinion that clean cultivation throughout the summer would be cheaper and more satisfactory. We have been growing cultivated crops between the tree rows during the first four or five years, not planting more than five or six rows of crops and thus leaving a space beside the trees eight to ten feet wide. If any one has tried paper mulching in growing young trees I am sure others would be interested in the results. As for painting the trunks with paraffin, why? My advice would be, "Don't do it."

Here is a good letter from a Blair county reader:

"Dear Mr. Kester:—We have taken the Pennsylvania Farmer for 18 years, and will take it the balance of our lives, if it is published that long. I always read Neshaminy Garden notes first. Your advice sounds like a father's. We have a little farm of 18 acres and certainly do love it. We have a family of six children. We work hard, but have a good living. What more can you expect in this life? I am in the poultry and truck business."

"Now for some questions. I would like to get a seeder that will work. Is a a good one? Last season I borrowed a from my neighbor, but it would not drop the seeds unless the hopper was full of seeds. I am told that the will not drop the seeds thin enough. I want your advice. I have dropped seeds by hand for twenty years, but you waste seed that way, and the rows are not straight enough."

He then goes on to ask about tractors, but I will have to write him my answers to the rest of his questions.

There seems to be so little demand in this day and time for "fatherly advice" that this letter has an encouraging sound. It is also encouraging to know that a modern couple is willing and anxious to work hard for the sake of their numerous little ones, that they enjoy doing it, and that they are making a success of it. I certainly would feel churlish if I were not more than willing to give them the best in the shop in the way of advice.

Both makes of seeders named will do good work if in good order and properly set. We have the first one named. We do not depend entirely on the gauge in setting the seeder for the different kinds of vegetable seeds. Seeds vary in size with the variety. We always, after putting seed into the hopper, place the machine on a board, cement pavement, or other smooth clean place, and push it ahead to see how fast the seeds drop. The gauge may then be moved either way until the proper amount comes down in the turning. Always sow more seed than you actually want to grow,

otherwise you may have a thin stand owing to poor germination. Watch the germination figures on the package. We have found it pays to blow the dust out of beet seed before placing it in the hopper, as it tends to clog up and stop the free flow of the seed.

At this point it is worth while to mention the fact that exact sowing of beet seed so as to have just the number of plants wanted in a row is impossible. A single beet seed has several potential beet plants within it, as indicated by the number of nodules on it. Sometimes, depending on the vitality of the seed and the kind of season, all these will grow. At other times only one will germinate. For this reason you can't plant beet seed and have the plants exactly as you want them.

A New Jersey reader asks how my family tree is coming on, and says that I have been too mum concerning it of late. The tree is thriving. When I began writing these Neshaminy Garden notes the tree consisted of the main trunk and two branches. These two branches have doubled by marriage in that time, and each has two off-shoots. Thus, what was a family of four eight years ago has become a family of ten. The "off-shoots" consist of two boys in one case, and a girl and a boy in the other. I carry a very good photograph of the entire tree in my pocket, but it would spoil my reputation for modesty (if any) if I were to have it reproduced here. I hesitate even to state how unusually smart the younger generation is.

Friendly Talks

By Edgar L. Vincent

It takes more goodness of heart to receive a kindness graciously than it does to give one to somebody else.

Down through a gully at one side of our farm runs a little stream. For some time after it leaves the spring higher up on the hillside this bit of a creek goes along merrily. Birds sing in the branches of the trees above it. Smaller rivulets find their way into it. Cattle come down from the pasture and drink their fill from its crystal clear waters.

But all of a sudden this brook disappears entirely. Not a drop in the channel lower down. No cattle or sheep get a bit of water to quench their thirst. What has become of the creek? It has dropped through a hole in the bed of the channel and is hiding from the eyes of everybody. All the water it has received from other streams is swallowed up and we look for it in vain.

You will not need to go far to find men and women just like that. All the little good turns which are done them, every last one of the smiles and the kindnesses others bestow upon them, they take and swallow up just as the stream in the gully takes and never gives back.

It may be they do manage sometimes to say, "Thank you," but there does not seem to be much heart in it. The words fall from the lips in a mechanical sort of a way that carries little heartfelt love with it.

It is easy to get into the habit of taking without giving anything of love back again. All we have to do is to indulge our selfishness a bit more and the wicked thing will have us in its grip. But, oh, the joy of saying, "I do thank you!" graciously! That beats anything else we can ever know.

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No. 11

Two Weeks of June in February

By C. L. WHITE

HOME from the first Pennsylvania Farmer Florida-Cuba Tour! The bathing suit and summer clothes are packed away again. The old heavy overcoat is on duty once more. Stay-at-home friends smile and tell about the spring-like weather they had while we were in the balmy southland. But there is no trace of spring in the March lion's bitter breath as this is written.

As we walk along icy streets some of us try to warm ourselves with memories. A week ago we were watching tiny tots in sun suits, and adults in bathing rigs almost as scanty, splashing in the warm waters of the Florida beaches. Some of us joined them in the water or took a sunbath on the beach, or contented ourselves with the flowing warm air as we rode along in open cars enjoying the strange sights of a semi-tropical landscape.

This article is written by request, a request repeated several times by members of the Florida-Cuba Tour party: "You must publish articles about the trip in Pennsylvania Farmer so our neighbors back home who wouldn't come along will know what they missed."

So the purpose of this story is to bring vain regrets to some of the stay-at-homes. I fear I shall not be able to make them feel as bad as instructions demand, for my whole supply of double-strength adjectives isn't enough to tell about the sights, the experiences and the warm southern hospitality all of us enjoyed on this trip. As my Irish friend would put it, they would have to come along to know what they missed by staying home.

There were 131 of us aboard as our special train pulled out of the Union Station in Washington, D. C., on Tuesday afternoon, February 18th. That didn't include the several railroad officials of the Pennsylvania and the Seaboard lines and another member of the party who was taken ill but recovered and joined us later. Seventy of us had boarded two chartered cars in Harrisburg that morning and had dined as we rode to Washington to meet two more of our chartered cars there and a fifth coming down from Philadelphia. Five special Pullmans, a dining car and a combination baggage car and coach made the seven-car special which was our home for the next ten days.

Almost before we were settled in our Pullmans it was supper time. And as soon as the folks came out of the dining car we began to hear complaints about the food. They asked if that good-natured, curly headed dining car steward was trying to kill them with those great helpings of food too good to resist. We turned deaf ears to all such complaints, for "Bucky" Harris and I had resolved to have a good time on this trip. However, when we went into the diner a little later we started complaining ourselves. After one has had two or three other courses it just isn't right to give a person three meaty pieces of Southern-fried chicken and expect him not to overeat.

We were up for an early breakfast our first morning on the train. Top.—A glimpse of one of the Florida orange packing plants the Pennsylvania Farmer tourists visited. Center.—Typical undeveloped country near Sarasota, Florida. Hundreds of carloads of celery are shipped from farms nearby. Bottom.—"Down among the sugar cane." This happens to be near Ocala, Florida.



Top.—A glimpse of one of the Florida orange packing plants the Pennsylvania Farmer tourists visited.

Center.—Typical undeveloped country near Sarasota, Florida. Hundreds of carloads of celery are shipped from farms nearby.

Bottom.—"Down among the sugar cane." This happens to be near Ocala, Florida.



chapel of the model village he has built for retired ministers. And at lunch he told us about this development of over 100,000 acres where he is trying to help the right people get a good start on farms of their own.

Evening in Jacksonville meant movies for some of the crowd or exploring trips through the city. For others it meant mysterious business in the office car of our train and feverish activity with typewriter, stencils and a misbehaving mimeo-



graph machine. The result appeared next morning and at intervals thereafter a Tour Edition of Pennsylvania Farmer. Typographically and editorially it may not have been up to its parent; nevertheless the Tour Edition had its "points."

Next morning found us in Ocala where the Marion county business men unselfishly took us to see that marvel of nature, Silver Springs. Mr. Smith and the other officers of the Chamber of Commerce really wanted us to know about the opportunities their section offers to farmers. But they let us spend our time in the glass-bottomed boats and we saw little of the county's rich agricultural sections.

Three Million Quarts of Strawberries

Neonday lunch on the train; we saved time by eating as we traveled. In the early afternoon we were met at Plant City by another hospitable Chamber of Commerce delegation with leading citizens and officials in their fine cars to show us their town, their local agricultural school, the vast phosphate mines. Under Secretary Huff's guidance we saw phosphate rock in coarse sand and pebble form washed out of the earth by great streams of water under tremendous pressure. It made us think of a giant's fire hose or of placer gold mining in the old West.

Plant City had already shipped nearly three million quarts of strawberries this season, and they were still going north by the carload on the day of our visit, February 20. We saw them graded and loaded and our longing looks were so effective that a generous shipper, R. W. Burch Company, gave us two whole crates to be served with later meals.

Across the street was the Burch orange grading, packing and processing plant. There deft girls wrapped oranges in the familiar tissue paper as they came from the washing, polishing, grading and sizing machines. Nearby were great insulated rooms where all the fruit is heated and held at a certain temperature before shipping, to kill any possible Mediterranean fruit fly larva.

The U. S. Army was out in force to see that we took no oranges back onto the train with us. The dreaded pest has not been seen for months, but no chances are being taken. No one complained when the army men searched our baggage for fruit that might carry the fly. I had an apple which was confiscated and then returned on condition that I eat it at once. And the army hung around until I ate that apple and all the fruit flies it may have contained.

(Continued on page 34.)

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WHY NOT A TEST?

THOSE whose business is or may be adversely affected by the Agricultural Marketing Act are saying, with many voices, that said Act is unconstitutional. If they really think so why don't they test it? The Federal Farm Board has gone to the limit of its legal power by establishing a grain stabilization corporation which is actively in operation. No reason now exists for the grain trade to postpone a legal test. Either that or less vocalism about unconstitutionality is in order.

THE WORLD'S FLOCK

IN presenting its bulletin on the world's wool situation the Bureau of Agricultural Economics wisely refrains from price forecasting—a policy that should prevail in all cases. The Bureau estimates the heavy production of 1929 at 2,687 million pounds, about nine million pounds above 1928, and expects production in 1930 to be "not greatly different" from last year. The world's flock, or the total for nineteen countries reporting, last summer was 267,215,000 sheep, an increase of about 10,000,000 over the period 1909-13.

FROM LIFE

MANY years ago a representative of this paper was impressed by the pure-bred hogs produced by a certain young breeder. He persuaded the breeder to try a small advertisement, being certain that the hogs would satisfy customers. They did, and for over forty years that breeder advertised constantly and exclusively in this paper. He told us once that he could not interest his neighbors in his hogs until they saw him shipping them to distant buyers, but he enjoyed a good nearby trade when they realized that he could sell away from home.

NOT SPECULATING?

THE Federal Farm Board issued an official statement last week which said: "The Stabilization Corporation is being accused of speculating in the grain market. There is no foundation in fact for such statement. The Stabilization Corporation is prepared and expects to take delivery of all grain purchased on futures contracts and merchandise it as conditions will permit." What is speculation if this is not? Buying, holding and selling or "merchandising" is of necessity speculation, no matter whether cash wheat or future contracts are bought, carried and

sold. The Federal Farm Board has proved conclusively that it does not know what the future of wheat and cotton markets will be, and without such knowledge it must speculate whenever it buys either of them with expectation of later selling.

CONSERVATIONISTS

LAST week was Conservation Week in Ohio by proclamation of Governor Cooper, who is an ardent advocate of the cause and has secured legislation favorable thereto. A conservation congress was held at Columbus composed of representatives of all organizations and interests concerned. Here the preeminence of Pennsylvania in conservation was recognized by speakers from Ohio and several other states, and by the presence of several Pennsylvanians on the program. We were among these, and we tried to show that farmers are more interested in true conservation than any other class, also more given to the practice of it. For example we cited the 40,000,000 forest trees planted by the farmers of Pennsylvania during the latest five-year period and challenged any other class to show anything equal to it. In Ohio's conservation plans and personnel agriculture is well represented as it should be everywhere.

NOT WANTED

A FEW hundred yards from this office a grading and building operation is in progress. Perhaps twenty or thirty men are employed there on days when the weather is temperate enough to permit out-door work. On one side of the entrance gate is a large sign which reads: "No Help Wanted." On the other side of the entrance a few feet away is another sign. It reiterates: "No Help Wanted."

Volumes written about the comparative economic security of farmers couldn't be as expressive as those signs and the brutal directness of their message to the city's job-hunting bricklayers, carpenters, stone masons, plumbers, electricians, steam shovel operators, truck drivers and that great unclassified army of mere "laborers."

A PLACE FOR DUALITY

SAM HIGGINBOTTOM sends us his magazine, the Allahabad Farmer, which always contains something of interest. In the latest number William Smith, whose title is Imperial Dairy Expert, discusses India's cattle problem. That country has 45,793,625 adult bullocks and 37,885,686 cows. He counts 90 per cent of the bullocks as actually required for the work of cultivation and their average life as nine years, concluding from this that only 4,579,362 bullocks need be raised every year. Then he says, "To do this only 1,400,000 cows are necessary"—wherein we can't quite follow him; but then we can't usually follow even ordinary experts, let alone imperial ones. We take it that the last-named cow figures are erroneous, for he says that "India carries some 24,000,000 cows not required for bullock production". What is to be done with these millions of cows? Mr. Smith thinks they ought to be milk producers, for the people of India neither work cows nor eat them. The cattle problem in India therefore is to get cows that will produce good work oxen and enough milk to make their keeping profitable. Here is a big field for a dual-purpose cow, and no doubt even Mr. Lighty would approve the dual principle in such a territory.

DEER REGULATORS

IN an effort to protect their crops and trees last year the farmers of Pennsylvania killed 1,193 deer. Such killing is not condemned by the Board of Game Commissioners, but farmers are asked to kill does rather than bucks whenever it is possible to discriminate among

marauding deer. That is a reasonable request. Our correspondence indicates less damage by deer in 1929 than for several years previous, and that is one of the wholesome effects of an open season for does in 1928. Farmers should insist on such a season every few years or whenever the deer become too numerous and destructive. Sportsmen, with the best kill of bucks on record following an open season for does, are learning that the way to have more deer is to have less. In other words fewer deer with proper balance of sexes will yield more and finer trophies than an unlimited number of sacred does and the perennial killing of bucks. Experience has proved that, we hope, to the satisfaction of all concerned.

LOWER PRICE LEVELS

IN discussing declining prices for wheat, cotton, wool, lambs, hides or other agricultural products in which we are directly concerned we are likely to overlook the same tendency in other commodities. But that tendency is manifest in a long list of things aside from the products of our country's farms. We might mention, for example, silver, coffee, sugar, raw silk and its competitor rayon, petroleum and its products, rubber, most of the metals and many of the staple chemicals, all selling at lower prices. In a few cases, such as rubber, coffee and raw silk, this tendency has been in the face of attempts to stabilize prices by artificial means or by government assistance. For prices are not respecters of government, no matter which way they are going.

What is the reason for concurrent declines in so many important commodities? That is a question to which no concise general answer may be given. In some cases the price of one commodity naturally affects the prices of others of the same class. Such relations exist among the different grains, among the metals, among the textile materials, and so on. Or the price of one class of products may affect the demand for another class, as for instance the effect of high or low prices for wheat and cotton on the market for fertilizer chemicals. The breadth of the current movement toward lower price levels suggests something more than such influences as these. Probably it is very largely the effect of heavy production stimulated by past necessity and attractive prices. Certainly this is true in some cases, and in such cases the present tendency is natural and inevitable, not to be stopped by any artificial interference.

Men may discuss at length deflation, normal prices, balanced production, increasing consumption, orderly marketing or what not, but they cannot escape the ultimate consequences of producing too much of anything.

A BUSINESS ERROR

WE'D like to see a better wheat market for the price of that grain means much to agriculture. We'd like to see every organization and every individual able to sell every bushel at a good price. But facts must be recognized and one of them is that the Canadian pool and all other organizations and all individuals holding wheat for higher prices have made a serious business mistake. Individuals are at liberty to make such mistakes, for they are dealing with their own property and responsible for their own losses; but the officers of cooperative organizations are not in that position, so they cannot escape the censure of their members when they indulge in speculation that goes amiss. The officers of the Canadian wheat pool are now blaming each other for the error; and the provincial governments have to guarantee the pool's bank loans to prevent its collapse and ensuing market demoralization. Possibly this experience, however costly it may be now, will prove valuable in the end. For it may help to show marketing organizations that their business is to market rather than to speculate by holding or in any other way.

THE enjoyable banquet of Burlington county dairymen held at Mr. Thompson last Thursday evening brought to the attention of the dairy industry the importance of that industry to that county. Over 250 men and their wives attended this banquet which for the past six years has been held under the auspices of the Burlington County Herd Improvement Association. Only a successful association could bring together an enthusiastic group of this size for an evening of entertainment.

Even Amos 'n Andy were present. County Agent Thompson, knowing that no farmer could leave home until he had first learned the latest troubles of Amos 'n Andy, arranged with a local radio dealer to have this hour broadcast during the banquet.

On speaking of the outlook for the dairy industry, Dr. W. J. Spillman of the U. S. Department of Agriculture brought out some interesting facts concerning the butter now in storage and the weakening milk market. That the amount of butter in storage is due to unemployment throughout the country and less butter being consumed rather than an overproduction is the belief of Dr. Spillman.

He considered the present situation temporary, but pointed out some things which dairymen must do to remedy this. High prices for cows during recent years has brought about an increase in the number of calves being raised by dairymen. It is estimated that there will be an increase of three per cent in the number of milking cows this year unless herds are culled more closely this year and many of the boarders weeded out. Dr. Spillman urged all dairymen to carefully consider the elimination of the unprofitable cows at this time. Dr. Spillman expects the Middle West owners of dual-purpose cattle to relieve the situation to some extent. These farmers can go into and out of the dairy business over night," he said. When prices for dairy products are high they milk the cows, but as soon as prices go down they untie the calves and turn that milk into fuel.

"This has happened in past years and we may expect the same thing to happen this year," Dr. Spillman told the Burlington county group.

Judge H. B. Wells, of Bordentown, in his address on the philosophy of life not only brought smiles to the faces of all, but left many thoughts for them to carry home.

REFORESTATION of marginal farm land has been a widely adopted program of our eastern states for many years, but farmers have been rather slow in accepting the offers made by the states to furnish seedling trees and other facilities. Just recently Alexander Legge, chairman of the Federal Farm Board, said that if every American farmer were to devote five per cent of his present acreage to restoration of the woodlot he would have gone a long way toward meeting the problem of over-production.

Most people think of a reforestation program along the lines of large areas commonly accepted in terms of future timber supply, but there is another kind of reforestation that is equally important—in fact, more important to agriculture—that is the reforestation of the so-called "woodlot," said Mr. Legge.

All the farmers in Maryland would plant five per cent of their poorest tillable land in trees it would amount to approximately 400,000 acres or about the combined acreage of Kent and Howard counties, was shown by F. B. Trenk, specialist in forestry for the University of Maryland. The average cost of planting an acre of land in trees is about \$9.50, which for the average farm in Maryland over a three year period, would amount to \$28.50 per year.

Judging from these figures many farmers can probably give this reforestation program serious consideration. We would be following an example of many older nations which have met similar problems in this way.

FARMERS all over the country are receiving questionnaires to be used in taking the 1930 census. Those who are not already dizzy from trying to answer the 232 questions correctly probably will be in that condition when the official enumerators visit them in April. Some of us who keep farm records may have to give up all thoughts

New Jersey Farm Comment

By G. W. HARRIS

of spring planting and take that time to figure out what we have been doing in the past.

These schedules are to be filled out and kept until the enumerator visits each farm. A report is required of every operator of a farm in the United States, a farm, for the census purposes, being any and all the land farmed by any one person, either by his own labor alone or with the assistance of members of his household, or hired employees. The land operated by a partnership is likewise considered a farm. A "farm" may consist of a single tract of land, or a number of separate tracts, and the several tracts may be held under different tenures, as when one tract is owned by the farmer and another rented by him.

When a landowner has one or more tenants, croppers, renters, or managers, the land operated by each is considered a farm. Thus, on a plantation

Son Poultry Farm at Little Falls holds fourth place with 1,123 eggs, only 24 behind the leading Pine Hill Poultry Farm pen.

Five New Jersey entries, led by the Fox and Son Leghorns, have passed the 1,000 mark. Barred Rocks owned by Spartan Rock Farm, Nutley, rank second with 1,052 and also lead all other entries of the breed. Two Leghorn flocks owned by Darfelt's Poultry Farm, Peapack, and United Poultry Farm, Toms River, are tied for third place in New Jersey with 1,039 each. Fourth place goes to Leghorns from the Quality Poultry Farm, Montville. Their score is 1,007 eggs for the 21 weeks.

FOX and Son Poultry Farm, Little Falls, N. J., is leading the Hunterdon County Egg-Laying Contest with a score of 979 eggs for 21 weeks. This is a margin of 31 eggs over the second place pen, also Leghorns, owned by Jerseyland Farm, Point Pleasant. Third place is held by a North Carolina entry of the same breed.

All breed divisions are being led by New Jersey flocks. In addition to the Fox and Son entry in the Leghorn class, Valley Brook Farm, Peapack, and Kerr Chickeries, Inc., Frenchtown, are ahead of all others in the Barred Rock and Rhode Island classes with 815 and 879 eggs. The miscellaneous group is headed by Wyandottes owned by Lauderdale Brothers, Lambertville, with 899 eggs.

QUARANTINE MODIFIED

MODIFICATIONS of the Japanese beetle quarantine with additions to the former territory have been announced to fruit and vegetable growers, shippers and dealers. According to the report sent out to the produce trade in general, Arthur M. Hyde, Secretary of Agriculture, has determined that it is necessary to quarantine sections of Massachusetts, New York, Pennsylvania, Delaware, Maryland and Virginia. The new quarantine regulations include the entire states of New Jersey and Connecticut as well as the District of Columbia.

The areas included in the quarantine with respect to certain states and parts of other states is as follows: Connecticut.—The entire state.

Delaware.—Counties of New Castle and Kent; and the hundreds of Broad Creek, Cedar Creek, Gumero, Little Creek, Nanticoke, North West Branch, and Seaford, in Sussex county.

District of Columbia.—The entire District. Maryland.—Counties of Anne Arundel, Baltimore, Caroline, Carroll, Cecil, Dorchester, Frederick, Harford, Howard, Kent, Montgomery, Prince Georges, Queen Annes, Talbot, Washington and Wicomico; and the city of Baltimore.

Massachusetts.—County of Hampden. New Jersey.—The entire state.

New York.—Counties of Dutchess, Nassau, Orange, Putnam, Rockland, Suffolk, Westchester; New York City, including the boroughs of the Bronx, Brooklyn, Manhattan, Richmond and Queens; towns of Binghamton, Conklin, Dickinson, Kirkwood, Union, Vestal, Binghamton, Broome county, towns of Esopus, Lloyd, Marlborough and Ulster, and the city of Kingston in Ulster county.

Pennsylvania.—Counties of Adams, Berks, Bradford, Bucks, Carbon, Chester, Columbia, Cumberland, Dauphin, Delaware, Franklin, Juniata, Lackawanna, Lancaster, Lebanon, Lehigh, Luzerne, Mifflin, Monroe, Montgomery, Montour, Northampton, Northumberland, Perry, Philadelphia, Schuylkill, Snyder, Sullivan, Susquehanna, Union, Wyoming and York; the townships of Armstrong, Clinton, Eldred, Fairfield, Franklin, Jordan, Loyalsock, Mill Creek, Moreland, Muncy, Muncy Creek, Old Lycoming, Penn, Shrewsbury, Upper Fairfield and Wolf, and the city of Williamsport in Lycoming county.

Virginia.—Counties of Arlington and Fairfax and the city of Alexandria.

In drafting the quarantine regulations for 1930 Secretary Hyde has designated three districts or territories, which are known as the regulated area, the generally infested area and the lightly infested area.



These early morning programs make a hit with the hired man

the land operated by each cropper or tenant should be reported as a separate farm, and the land operated by the owner or manager by means of wage hands should likewise be reported as a separate farm.

No tract of land under three acres is considered a farm unless its products in 1929 were valued at \$250 or more.

IN response to the request of the Federal Farm Board to 12 northeastern states for information on the marketing needs of each state, New Jersey plans to begin a survey this spring to determine the status of farmers' cooperative organizations in the state. An allotment of \$2,100 has been made to New Jersey by the Federal Farm Board for this purpose.

Such information as will be secured could profitably be used by groups of farmers in the state who are dissatisfied with their present marketing system and are planning changes.

APEN of Rhode Island Reds owned by the Scott Poultry Farm, Groton, Mass., led the Vineland Egg-Laying Contest at the end of its twenty-first week. This flock gained 11 eggs on the second place Pinecrest Orchards Rhode Island Red birds from the same place and now leads by 16 eggs. The totals of these two flocks are 1,209 and 1,193 eggs respectively.

The leader among New Jersey-owned pens are Rhode Island Reds from the Woodview Poultry Farm, Mount Holly, which have laid 1,101 eggs to take fifth place among all competitors. Following them are Rhode Island Reds owned by Louis D. Schable, Shiloh, with 1,085 eggs.

During the past nine weeks the Vineland Contest has shown a production of 65 per cent or more.

For Future Agriculture in Keystone State

By ALLAN L. BAKER

NE of the first problems confronting our young people on the farms is who shall stay and who shall leave the farm. Only the individual can answer that problem. What assistance is available in helping him to make that decision? May it not be that club work can help him make it?

One way of determining aptitudes and attitudes toward farming and farm life is for the individual to begin, in a small way, to try out several types of farm activity to see which ones appeal to him and in which branches he may possess some special ability. Participation in livestock, fruit and crops clubs will enable the boy to feel his way and to eliminate those branches for which he may not be adapted.

In this connection, it might be interesting to cite the case of a young man in Beaver county who, as a youth, joined a community potato club largely because his friends and chums did so and not because he was particularly interested in potatoes. Nor was he interested in pursuing farming as a career; in fact, he had definitely made up his mind that he did not want to stay on the farm, but intended to enter the mills which flourish in the Beaver Valley.

A second year of potato club work followed; the thing actually got to be interesting. Some seed potatoes yielded 40 per cent more than others, even though conditions as to soil, fertilization and cultivation remained the same. "Why was this?" the young man asked himself. Paying attention to the demonstration he learned, gradually, the underlying principles of profitable potato production. "If these principles apply to potatoes, why not to other crops, to fruits, to livestock?"

And so the young man developed, growing each year in perception and understanding. A prize scholarship enabled him to attend the eight weeks short course at the Pennsylvania State College. Here the same progress was continued; his decision as to his life work was reversed. Today that young man is married, is living on a Beaver county farm, thoroughly enthusiastic about his future prospects and apparently well on his way to becoming one of the county's leading farmers of the next generation.

A prominent educator has defined education as "A process of directing experience in such fashion that certain desired changes in disposition, knowledge or conduct shall result." Club work, using the project method of teaching, is based on just that philosophy, that "experience is the best teacher."

The club member learns while he earns, he has a direct and personal experience in his chosen line of work, a guided or directed experience with the assistance of local club leader, county agent, and college extension specialists to aid him. His learning is active, personal and motivated by interest in the project undertaken; positive results are assured in a large majority of cases of participation.

Fortunate we are, too, in the close association of farm business and home. Since the industrial revolution, when the steam engine took industry out of the home, farming remains the one large industry where home and business are closely associated. Shop workers, factory hands, store employees, the merchant and salesman all leave their homes to pursue the daily tasks. Children growing up in those homes do not have the advantage of daily contact with father's business as in the days gone by.

Social Adjustments in Progress

The business, trade or profession must be learned outside the home and our urban schools have, to a large extent, taken up the burden of providing vocational training. School print shops, manual training, machine shops, home economics courses, handicraft, etc., are the answer of the school to industrial revolution. Not so with the farm youth. Here the old association remains and rural parents have an opportunity to guide, or di-

rect, the experience, education and training of their children to follow in their footsteps as no other group of people have.

Not only have there been economic adjustments; social adjustments have been and still are being made. Gone are the days of primary neighborhood contacts, of neighbor helping neighbor, of log rollings, barn raisings, husking bees, quilting bees, and the like. Social affairs in many communities are not limited to the small neighborhood. Machinery, better transportation and marvelous communication facilities have broken down the barriers.

More and more, farms are economic units in themselves. Contacts made by the individual are secondary, or remote, not primary and nearby. Business, banking, social contacts, church memberships, are centered often in villages, towns, or cities which were a day's journey removed a generation ago.

New Influences in Life

No longer do the majority of farmers dicker with the local dealer over the price of milk. Mr. Farmer belongs to a cooperative dairymen's association, with offices perhaps 150 miles away, which has representatives meeting with those of distributors and consumers, the group determining the price after considering all factors.

Does Mr. Farmer understand his relation to this secondary, or remote, group? Does he understand how he can make his voice felt in determining its



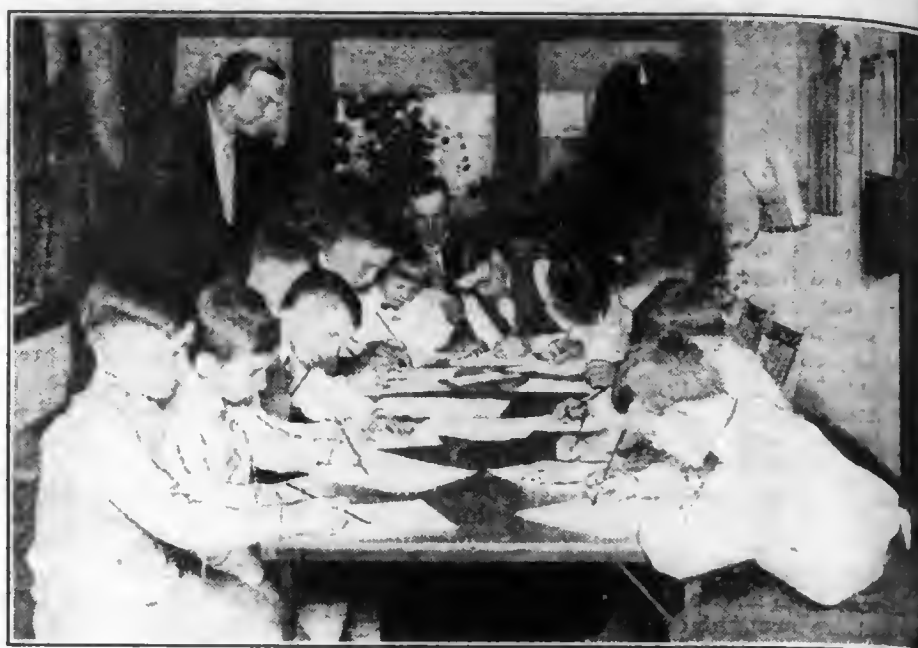
Progressive Union county parents are giving their youngsters the benefit of a "directed experience" in dairy club work. Included also are prospects for founding a pure-bred herd and building an income.

policies? Does he understand how the policies determined by the directors filter back through the organization and affect his attitudes and business? The efforts continually being put forth by such organizations to maintain the morale of their membership are evidence that his understanding is not too clear.

The daily urban newspaper in the farm home with its nation-wide and unified press dispatches is a powerful secondary influence in molding the farmer's opinions and attitudes. A newspaper correspondent talking over the radio from London, three thousand miles away, molds our attitudes on naval limitation and world political affairs.

Some weeks ago, at the State Farm Products Show, the writer was interested in listening to a group of club members whistling as they combed and curled their baby beeves for the show. What were they whistling, "Old Black Joe," "My Old Kentucky Home," or "Comin' Through the Rye?" Instead, I recognized "Tip Toe Through the Tulips," "If I Had a Motion Picture of You," and others of the type. Where did they learn them, in the little red school house? That influence comes from the "talkies" in a town perhaps fifteen miles from their homes, or from a New York radio studio 180 miles away.

Our young people of today need training and ex-



Club members with local leader and county agent "learn to work and play together... understand parliamentary procedure and the conduct of a business organization."

perience which will enable them to adjust themselves comfortably to this modern social situation as it confronts the farmer. Club members learn to work and play together, to conduct their own business, they understand parliamentary procedure and the conduct of organization business. Through an understanding of the club organization, as it reaches down from the United States Department of Agriculture, The Pennsylvania State College, the county agent and county extension association, through the local community leader, to them, they come into a fundamental understanding of the workings of these secondary influences and their part in the greater whole.

On the sociability side, club work is an asset to a community. Commercial recreation and amusement has made inroads upon our rural social situation. How much we can do about it, how much we should do about it, we cannot tell.

Two things the young person may need. One is to have provided sane, sensible, self-created recreation and entertainment in his younger years, free from the baneful influence of certain types of commercialized amusement. The other is to have developed within the individual an appreciation of the right types of recreation and amusement so that as he grows older his attitude and ability to choose will lead him aright in the pursuit of his leisure-time activities.

One of the stumbling blocks for the fellow who decides to remain on the farm is the acquisition of sufficient capital to get a satisfactory start in his chosen field. First, to build an income, second to acquire capital therefrom, and third, ability to manage that capital that further and sufficient income for the establishment of farm, home and family may result. Club work gives the farm boy an economic experience in a small way on which he can build his future economic independence.

We have in mind two brothers, farmer potato club members in Butler county, who are now in business for themselves and annually grow 30 acres of potatoes. Their experience and training was started in a small way with one sack of disease-free seed. Other examples of the building of pure-bred livestock herds, etc., are continually being given in the columns of The Pennsylvania Farmer, so we need not dwell at length on that angle.

Agriculture like any other industry does not stand still. Progress has been and is being made. We know that our potato acreage is decreasing but that our net production has increased. Fewer cows are producing more milk, fewer trees more apples. The farmer of tomorrow must be more efficient than the one of today if he is to survive in the competition.

Young farmers like Gerald Gummo, of Clinton county, with his ton litter of Chester White pigs, or Clay Erdley, Union county, with his champion Holstein cow producing 10,387 pounds of milk and 391.3 pounds of fat in nine months have an ideal implanted in their minds which will be a standard for future conduct.

These factors of improving livestock and crops of increased efficiency, of higher ideals, of training the young people to meet the situations of tomorrow are not confined to any one community, one county, or one state. They are universal. In Pennsylvania alone, there are some 200,000 boys and girls of club age, 10 to 20 years of age, who are facing the problems that have been enumerated

"Go ahead and try your lunch-counter plan," he said. "I reckon you'll have one good customer no matter what you do, and that's Jack Rose."

Toots had a suspicion that Mrs. Ham would bring more good-will than that, and this proved to be the case. People liked her and admired her for her plucky efforts to support herself and her inefficient, rather silly sister. Miss Orianda declared that the family pride was humbled to the dust by Nesta's public display of herself as a shop-keeper's clerk, but she consented to make the doughnuts to be added to the cups of coffee.

"You must never let on to anybody about this," said Mrs. Ham to Toots. "Never even let Orianda know that you know. If you do she will stop making them." Mrs. Ham smiled and raised her eyebrows in a whimsical way.

Toots promised and Miss Orianda, satisfied with the kind of concealment practiced by the ostrich that hides its head in the sand, contrived to send the doughnuts by the hand of a darkey, sworn to secrecy. The urn amused the Carburyites, but the odor of the coffee, which was the best Toots could buy, was not a thing to be sneezed at by southern noses, and the doughnuts were delicious. The innovation became a popular institution almost immediately.

During his spare moments Toots worked with Daddy. Right in the middle of their labors on the all answers to the advertisements began to come in. Toots had set terms that Daddy had thought were too high, but none of the applicants found fault with them. The one thing they wanted to be sure of was a guarantee of good sport, and this the partners felt they could honestly give.

Toots had noticed the peculiar "blinds" used by some of the gunners of the fleet. The ordinary method was to shoot from a stand on some projecting point of shore, or bit of marsh, but the oystermen stuck small cedar trees on a naked flat, in the form of a hollow rectangle into which they ran their low punts, and thus got good shooting on the ebb tide, when the average shore of pond-hole stand was almost useless. He and Daddy installed a number of these and then felt they were ready for business.

They judged it expedient, however, to take not more than three boarders at a time. Daddy could attend to that number himself. With the money coming in from the boarders and Toots' salary they could well afford to hire a carpenter to work on the ell. Toots thought it best, and Daddy agreed with him, that he should continue on at the store, turning over what he earned into the improvements and outfit until the Bullseye was in proper shape and going strong enough to provide a reasonably sure living for them all.

To do this the Bullseye must be prepared to meet the fall and winter gunning custom, and the spring and summer patronage of fishermen. The two lines were not so far apart as to demand radical changes in methods of operation, but there were differences that meant additional expenses and special planning.

THE way Mrs. Ham took hold at the store made Toots' duties there less heavy than he expected. But after all he was not surprised. Why shouldn't an active, intelligent woman make a success at such work. Mrs. Ham had, as she said, a real knack for figures. Even Jepson, who kept his eye on the business much more closely than he had in Tiger's time, half grudgingly admitted he couldn't have got a better book-keeper. But it was her agreeable personality and her keen interest in every detail that made her especially valuable. She studied every angle of the trade, from purchasing goods from the wholesalers to selling them across the counter.

Toots, far from being jealous, was delighted at her ability, which promised satisfactorily to settle a crisis that he foresaw was bound to come soon. The few boarders who had come to the Bullseye found everything up to their expectations. The sport was excellent, the house homely and attractive, and Nancy's cooking went to the right spot. And Daddy, quaint and capable, made a hit with them. Some of them stayed longer than they had originally intended, and all declared they would come again and heartily recommend it to their friends. But this sort of advertising, pleasant as it was, was hardly needed. The ads. in the sporting papers were already bringing in more applications than they could handle. The question was arising whether they could afford to turn down the applicants for the sake of Toots' work at the store.

Daddy and Nancy both voted in the negative. Toots held out against them for some time, solely out of consideration for Jepson, but he was sure that Mrs. Ham could fill his place perfectly. He talked it over with her, and though she was unselfish enough to hope he would stay on, she thought she could manage the store. The larger salary would, of course, mean a great deal to her.

A Thinking Job

By Fisher Ames

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But she urged him not to resign until he felt his own affairs absolutely demanded it.

Toots expected a tough quarter-of-an-hour with Jepson, when the time came for a show-down. He had it. Jepson was indignant at first, but his indignation was really a kind of dying throes of his conservatism. He couldn't and perhaps didn't want to believe that any woman could run any store of his.

Toots suggested a three-cornered discussion with Mrs. Ham, but Jepson was afraid that this would look like committing himself.

"Well, why don't you go to the store and see for yourself how things are running?" said Toots. "Ask her any questions you think of."

Jepson agreed to this and for several days he probed about the store with an innocent and casual air that deceived nobody. Mrs. Ham was quite untroubled by his presence. She knew that she knew the business. Finally, when they happened to be alone, she turned on him with a smile.

"Now Mr. Jepson, please give me an examination," she said.

Jepson yielded. He asked every trade question he could think of, and then pushed back his spectacles with a gesture of surrender. One at least of his old-fashioned prejudices was scotched.

"You win, Mrs. Ham," he acknowledged. "But where you're going to get an assistant from the Lord only knows."

Jepson was unduly pessimistic. No one had liked to work for Captain Tiger, but with attractive Mrs. Ham in charge the atmosphere of the store was entirely different. Moreover, Jepson, hiring direct, paid better wages than Tiger. A clean, enterprising young fellow, a nephew of the lazy Joe Hoskins, proved eager to take the job.

At last Toots was working for himself, was in that desirable position where he was his own boss. And yet he was not wholly satisfied. He tried not to let himself acknowledge it, but the thought would intrude that, supposing the Bullseye kept on being as profitable a venture as it promised, was he going to be content to settle down as a sports-

man's guide, or even as a hotel proprietor, employer of hired guides?

In other words, was money all that he was after? For success in Carbury meant money only. It wasn't a small thing to mean, of course. There were times when Toots, thinking of the past, was dazzled and exhilarated by the idea of a comfortable future; nevertheless his old longings would not down.

Good food, good clothes, freedom from anxiety as to where his next job was to come from, all these were mighty fine, but what about that other side of him, the side that wanted an education, that was more concerned with filling the pockets of his mind than the pockets of his clothes? Toots didn't know exactly what the trouble with him was, only his mind had a way of feeling empty.

Reading partially satisfied the feeling, but at the same time aggravated it. Other people's cleverness was a delight to him, but it did emphasize how little, how very little, he himself knew.

Toots was not the kind to talk about himself, or let his thoughts interfere with any work in hand. In fact he tried to drive such thoughts away by working extra hard, and to a certain extent he succeeded. Often he was really happy, especially when, in between boarders, he had time to devote to his shells. Whenever he could, after a hard blow, he went across to the outer bar to see if any specimens had been washed up, such as the calliostomas, of which he found two on a lucky trip; the white scalas with their smooth, elevated ribs; the chestnut-barred natica, whose flaring aperture is lined with purple, and other more common species.

At the extreme low tides, which fell twice every month, he hunted over the flats for species that liked quiet, shoal waters and fed on algae and eelgrass. Daddy and Nancy considered him a little "gone" on the subject, but they had ceased to tease him about it. Toots was certainly entitled to his harmless hobby. For the first time in their lives they were feeling prosperous and they believed they owed it all to him.

THE cottage on the lagoon shore had rather lost its right to that title. The new rooms in the ell, each planned to hold two boarders, had been supplemented by the old kitchen, transformed into a bedroom, and a new kitchen with up-to-date appliances, built out from the north side of the dining-room. Moreover a small dormitory bungalow had been erected close to the shore.

Toots was at the bottom of this expansion, but he had not insisted on it until he had ascertained the boarders' views as to future prospects. They were all optimistic; not merely because of the excellent sport, but also for the reason that Daddy, Nancy and Toots were as agreeable as they were efficient, and because the cottage with its living thatch and masses of shrubbery, and the wide expanse of islet-dotted water at its gate, were unusual and picturesque.

Toots' prices were not low, and most of the boarders were men of ample means. They were familiar with pretentious, over-crowded hotels and heartily sick of them. The simplicity and snug coziness of the Bullseye was a welcome change. The fare was like the home fare they had once been used to, and to which they liked to look back fondly. As a matter of fact it was really better, for Toots had never forgotten the Colonel's saying that "the way to a boarder's purse is through his stomach." Nancy had made a wry face at this aphorism, but she did not forget it either. The team-work of the three was one of the big reasons for the Bullseye's success.

With very few exceptions Toots found the boarders as interesting in their several ways as his books. He did not realize that his own personality had a good deal to do with it, that the men saw something in him that appealed to them and pre-disposed them to friendliness. Occasionally they were unapproachable and arrogant, men whose money and the power it gave them had turned them into selfish egotists such, for example, as Chester A. Welby of New York.

Welby was a millionaire toy manufacturer. He should have been the Santa Claus type, big-hearted, jovial, ruddy and kindly of eye, but he wasn't. His cold aggressiveness of manner never left him even when with his equals, and Toots and Daddy he treated like inferior persons who had to be kept in their humble places. He was a keen hunter and an exceptionally good shot, but never satisfied with his bag. On his first day on the water, looking at a distant raft of brand, he remarked: "I'd like to get that bunch lined up and blow the heads off every one of them."

From that moment Toots conceived a strong dislike for Mr. Chester Welby. It fell to him, however, to act as Welby's guide, for Daddy was already engaged with two other boarders. Toots had no intention of quarreling with his bread and butter. (To be continued.)

The Cheerful Plowman



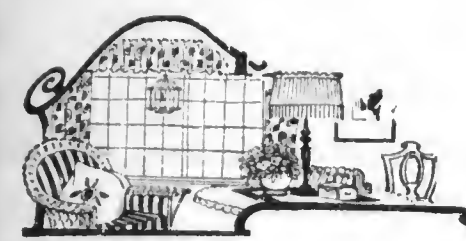
EXTRA DOLLARS!

WHEN there's a chance to make a dime, or twenty pennies at a time, a dollar and a half, an extra ditty here and there, that money's just as good, I swear, as coin from pig or calf. Some farmers are too proud, I feel, so extra dollars don't appeal picked up just here and yon, they will not grab the thirty pence that comes from yonder, aft and hence, the mites they happen on.

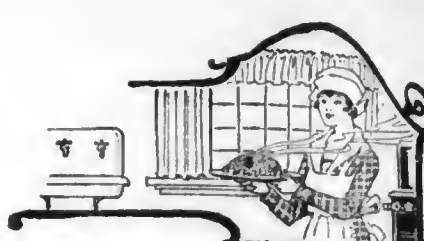
Not so with me. I do not wait, nor blush with shame nor hesitate when I can earn a sou, provided if the way is fair, the money's just as good, I swear, it's money through and through. For instance, in the winter time I do not think it is a crime to do some trapping then, so wife and I slip out at night and set some traps and set them right around a cave or den, and if we catch a thing with fur that means some cash for me and her, a dollar, two or three, and by the powers, that coin, I learn, when it's invested in its turn for hats for her or me goes just as far as coin that comes from wheat, or oats, or spelt, or plums, or barley, hens, or rye. It buys of merchandise the same as other dollars in the game, it surely does, and why?

If I were proud in silly way I would not utilize a day in catching fish and frogs; I'd say that money made like that is not real money smooth and fat, like money got for hogs. I'd say, "I hate such petty pence, a man is small and has no sense who earns such dollar bills; the only cash that's worth the name is taken in a bigger game, it's won from fields and hills."

J. E. T.



The Farm Home



County Libraries Help Schools

By GERTRUDE S. STEWART

UNCLE SAM recently completed a survey of library resources in two California counties. Their research compares for one year two counties similar in topography, population, assessed valuation, number of school districts and total amounts expended for public schools. One had county library service—the other did not.

In the county with library service, the schools had not only good classroom libraries, but many supplementary textbooks, phonograph records, stereographs, magazines for the children, professional magazines for teachers, and many circulating books for recreational reading. Here they found the children well advanced in their work and rapidly acquiring the "reading habit."

Now let us read what they discovered in the county where each school purchases its own collection of library material. In these schools are a vast accumulation of unused supplementary texts, old books of reference, and many books not at all suited to the schools where they filled the shelves. These same books, however, might have value if circulated to other elementary schools, high schools, or communities.

How about money spent? The county library spent \$3,560 and gave real service. The county without library service spent \$3,243 during this one year, and the benefits were uncertain and haphazard. This set of schools had but a few new books per school, and they will soon be sleeping on the shelves beside the other dead books already buried there.

Where the county library is in charge, each school receives many sets of books, magazines and records, for a constant interchange is established, and no volumes have a chance to get dusty.

California is very alert on this subject, and has forty-six county libraries in charge of school supplies. Only twelve more counties to fall in line. In the East we find New Jersey boasting ten county libraries out of its twenty-one counties.

A new one, Somerset county, voted on this subject in November, and the vote carried, seven to one. Bills are now pending before the legislatures of New York and Virginia providing generous state grants for maintenance of county libraries. Mr. W. F. Seward, of New York, says, "The library is the noblest exponent of the American spirit.... It means beauty, happiness, intelligence and well being, the prosperity and thrift of its community."

Have you a county library? If not, arouse ye! Society of Farm Women, Home Bureaus, Granges, Parent-Teacher Associations, Women's Clubs! Ye, and all the other county cliques! Get ye together, and start the library truck in your community!

There is an attractive and interesting booklet published by N. Y. State College of Agriculture which might help you in starting enthusiasm. It is called "The Library of the Open Road." Free for the asking. Drop a card to Cornell University, Ithaca, N. Y. Ask for Bulletin No. 188. A community without a library is a community whose soul is asleep.

A Feast of Catalogs

DEAR Sadie:—Are you enjoying the beautiful spring seed catalogs? I have just been feasting my eyes on the colorful flowers and vegetables, and my order for early garden seeds has already gone forth. In it are several old favorites no one mistakes in buying.

It would be hard to beat the Oxheart carrot, Macomber rutabaga, Pencil Pod black wax bean and the Scotia pole bean. These we have used for several seasons and thought you might like to try them in your new garden this year.

The Oxheart carrot grows quickly, is always sweet and tender. It has no core and no tough fibers. The small tender ones can perfectly, and those that grow to mature size may be stored in the cellar for winter.

The Macomber rutabaga is the most delicious of all the turnip family. They are tasty as soon as of a size to eat. Those that are left to grow large, store well in autumn and keep until late spring. They are crisp and tender all winter long. We find this white rutabaga very sweet and mild. It is sometimes called the Swede or Russian turnip.

Stringless wax beans are a delight, and the Pencil Pod black wax heads the list. The pods

are long, straight and round, clear yellow very brittle and really stringless. They mature early and are vigorous and productive.

As soon as the early bush beans are gone, the Scotia pole bean is in bearing, and if picked clean, will continue to feed you through August and even September. A few hills supply a family, but do plant enough that you can have a case or two of jars "put up" for the winter. They are more rich and tender than any beans we have ever eaten. The pods are light green and entirely stringless.

I hope you will like these good things, too. As ever, Sis.

The Question Box

CAN you help me with my problem? Our boy is nearing the entrance to high school, and when we look over some of the graduates of this school, we are quite discouraged. If we send him through, will he think more of a white collar than of the honest toil on the farm? Mrs. D. L. W.

"As the twig is bent, so is the tree inclined." Many of our country's really great men grew up on the farm. No one can promise what any boy will become. If his background has been of straightforward character building, he is not liable to grow lazy just because he has that splendid opportunity of going to high school.

Many high schools today offer a course in agriculture, where boys with the farm bent may have training, and this is ideal for the country lad who wants to farm.

Boys who have no definite ideal of work in mind



When preparing broccoli, use the center stalks with flower heads attached. Cut them lengthwise into strips as here indicated. This insures even cooking, and the cut stems will be ready when the floral parts are.

often "find themselves" during this high school period, and are led into fields of work and usefulness fully as desirable as the farm—if their likes happen to be in other directions.

Rather let your boy become a good machinist than a poor farmer. Let him grow up a good doctor rather than a poor farmer. In fact any honest toil in whatever work he chooses would be preferred to "bungling" his life with something in which he has no interest. But a high school education is a priceless asset, no matter what he plans to do.

G. S. S.

Your Fireplace

IF your brick fireplace needs cleaning, try this:—Pour two cups boiling water into your scrub pan. Add four tablespoons ammonia. With a perfectly clean scrubbing brush go over the bricks brushing down several times. Then as quickly as possible, go over them again this time using clear hot water.



Here you see a county book truck serving library material at a one-room crowded school in Hennepin county, Minn. This truck wore out in the service, and a splendid new car with closed body is on duty there this school year.

Doctors and Child Labor

By HEPSY NEFF

FIFTEEN physicians of outstanding repute recently agreed that child labor is a national menace—from a health standpoint. They condemned it as a major cause of physical unfitness among children and as the foundation for much illness, maladjustment and inefficiency among adults. A child's strength should be used for growth and development. Child labor during the teen age as well as just before, puts an undue strain on the child at an age during which even under normal conditions the tax upon him is greatest. On this the fifteen health authorities are agreed.

"Over-fatigue brought about by unregulated child labor is one of the chief reasons why many Americans are still physically unfit in spite of the vast increase in health work and health teaching.... Child labor contributes directly to the increase in three of the most serious diseases affecting American people today—heart disease, nervous diseases and tuberculosis.

"The fact that more people are suffering from nervous diseases today than from all other diseases combined cannot be separated from the question of child labor," is the opinion of Dr. Harris, former Commissioner of Health of New York City.

Much more along this line may be found to American Child Health News for February, 1930, but enough has been quoted to set us all thinking. No one holds that children should do no work, but it should be much less than is now the custom in some places and long hours are particularly harmful. Light tasks at regular times with more hours of play than of work, not occasionally but daily, coupled with such an interest in the real happiness of the child as shall promote a happy state of mind is the ideal we should set for ourselves.

Write to U. S. Department of Labor, Children's Bureau, Washington, D. C., for list of free bulletins on Child Health.

Do You Know Broccoli?

BROCCOLI has during the last few years gained great prominence in the United States. It is one of the leafy vegetables resembling cauliflower in its method of culture. The flower head, the part which is eaten is quite like cauliflower, except it is deep green. The lower end of the plant stem and the leaves are tough and should be trimmed off.

These flower heads are carefully washed then cooked by dropping into boiling water slightly salted. Cook for fifteen to twenty minutes in the uncovered kettle. Do not overcook. As soon as it is tender, drain, season to taste and pour over the platter melted butter or other melted fat. Occasionally dress it up with Hollandaise sauce.

It's a nice idea to try something new each year in your garden. Why not give broccoli a chance this year? It is liked by nearly every one, and has a frequent place on the most expensive plates served at banquets. It is tender and tasty, really a delicious green.

G. S. S.

Feed Your Chicks PEARL GRIT

Right at the start, baby chicks need Pearl Grit No. 1. The pieces are the proper size and shape. Pearl Grit supplies mineral required for bone growth. It averts leg weakness, rickets. Builds resistance against diarrhea and other chick diseases. Has no odor or flavor to excite overeating and consequent binding or prolapsis of crop. Contains no harmful foreign elements; no sharp splinters to irritate digestive tract. It's safe, wholesome—and economical. Obtain Pearl Grit No. 1 for chicks—No. 2 for half-grown and adult birds—from hatcheryman or feed dealer at once. 10-lb. cartons or 50-lb. bags.

Write for free book—today! Get all the facts. They're explained in our valuable book. Find out how Pearl Grit increases poultry profits; why it is the ideal mineral feed for flocks of all ages. Don't delay. Start your chicks right and have great success. This astonishing book is yours for the asking. Mail postal or letter for it to: Pearl Grit Corp., 513 Bridge St., Lima, Ohio.

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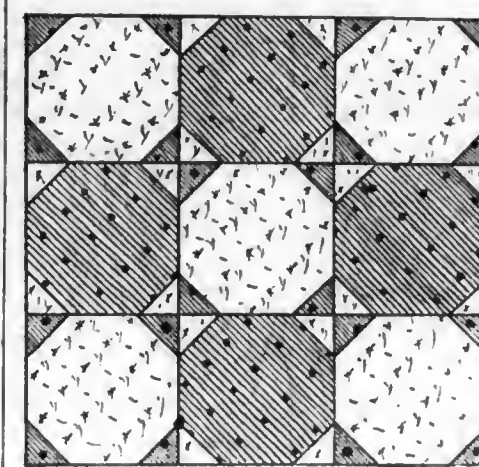
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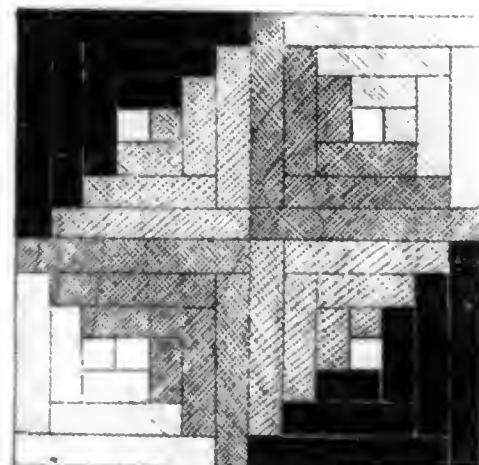
Snowballs and Log Cabins

DON'T they make you think of your grandmothers? They do me, and I can picture one of those dear old ladies in her black silk frock, her soft gray locks just peeking out from under the lacy cap. She was eighty-three when I watched her putting together the interesting strips she called the American Log Cabin Quilt.

We have this pattern ready for you now and another old favorite which every one loves—the Snowball. Both are especially good patterns in using up left-over scraps of material which accumulate in all sewing rooms.

The Log Cabin block is fifteen inches square, and the Snowball measures ten and one-half inches. Patterns come with complete directions for making. The pattern shapes are hand cut and accurate—ready to start the lovely quilt. We have seventeen other interesting old quilt patterns at the same price—fifteen cents each. Two quilting designs are the two for fifteen cents.

Send your orders to Home Department, Pennsylvania Farmer, 7301 Penn Ave., Pittsburgh, Pa.



A Bird Sanctuary

THE little pioneer cemeteries that are such an eyesore in many communities because no relatives remain to care for the graves of the departed, can easily and quickly be turned into bird sanctuaries with a little effort. Many states have a law forbidding any one to shoot in a burying place so birds are secure.

All kinds of native shrubs and berry and seed-bearing trees that will attract birds can be planted in the neglected spot. Wild cherries, mulberries, evergreens for winter shelter, haws, oak, elm and all kinds of trees will furnish shelter for the nests and for those that remain in winter. It may be that in time of deep snows they will have to be fed, but sportsmen all over the country are combining with farmers to save the wild life in severe weather.

These little spots will be very valuable to high school students, farmers who desire to keep alive birds that eat harmful insects, and all nature lovers the country over. Many of these neglected spots now have a good foundation of old trees and need only the trash and refuse and briars cleaned away to make room for more.

Hilda Richmond.

When you retire these March evenings remember what Napoleon said, "He who sleeps till noon cannot know how beautiful is the sunrise."

Before the Blizzard Struck the Schoolhouse

A Bell System Advertisement

TWENTY pupils were gathered one mid-winter afternoon in a little white schoolhouse in the prairie country of North Dakota. At half-past three there was a general ring on the telephone. Answering it, the teacher learned from the operator that a severe blizzard, moving at the rate of sixty miles an hour, was reported from a town fifty miles away. The families of a number of the pupils received this same telephone warning, and within ten minutes enough teams were at the schoolhouse to take all the children home in safety.

The teacher then fixed her fire, and was able to reach her boarding place before the blinding snow and wind isolated every building in the countryside.

The telephone renders valuable aid in any emergency—in cases of accident, sickness and fire. Whenever there is livestock, hay or grain to be bought or sold, the telephone gives profitable assistance in arranging the most advantageous terms. It is always ready to run errands, bring spare parts for broken machinery, or keep families and friends in closer contact.

The modern farm home has a telephone that gives service, rain or shine.



Now a New Kind of Copper Steel Wire Fencing. Less 2¢ Than Per Running Foot. American Wire Fence Co., Cleveland, Ohio. Selling, Steel Posts, Gates, Barbed Wire and many other items and home goods. Direct from factory. Freight paid. Easy Payments. Write today—Jim Brown.

METAL ROOFING. WE PAY THE FREIGHT. LEADCLAD. KEystone COPPER BEARING. WIRE FENCE AND BARB WIRE. APEX-GALVANIZED ROOFING. CONSUMERS MFG. & SUPPLY CO., Dept. F, Moundsville, W. Va.



DIBBLE'S

Russet Potatoes

the heaviest yielding, most reliable variety for main crop we have ever grown. Strong, healthy vines, thick of excellent quality. We have thousands of bushels, both certified and selected, grown right here in West Virginia. New York last year, that average 100 lbs. per bushel. No 1. Moundville, Gold Coin, Early Set, Minnyunkers, Mainstays, Cobblers, Rose and Early ones. In any quantity from barrels to car loads at prices you can afford to pay. Certified potatoes are getting scarce. Now is the time to buy.

HEADQUARTERS

for Seed Potatoes, Oats, Corn, Barley, Buckwheat, Spring Wheat, Alfalfa, Clover and Grass Seeds.

Buy Direct—Save Money

Dibble's Farm Seed Catalog and Complete Price List free.

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In fact, this new Weed American tire chain seemed too good to be true, so we abused it, misused it, and tried it out on every sort of road and testing ground. For two years we abused it. It stood up twice as well. So now we are telling you about it, and your dealer sells it. It's a great mud and rut chain. Look it over. That's all we ask.

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WEED CHAINS

In the Pennsylvania Farmer are Names—names of advertised products. Time and again you see them. They are like old friends—to be trusted. Their names mean economy, full value and integrity. Tell the manufacturer you saw their ad in Pennsylvania Farmer.

500,000 Farmers Have Borrowed from the 12 Mutual Federal Land Banks a Billion and a Half Dollars at an average interest rate of 5.4%

THIS \$1,500,000,000 in long-term loans secured by first mortgages on their farms provided much needed capital during a period when funds were scarce and the average farm income low. All but a small percentage of these farmers have met their obligations. The 12 Banks have total capital, legal and other reserves and undivided profits aggregating more than \$64,000,000. Their total assets exceed \$1,300,000,000. The net carrying value of the real estate, shares' certificates and similar items owned by the 12 banks on November 30, 1929, was only 1.1% of their assets.

The services of the 12 Banks and the National Farm Loan Association through which the loans are made have been of inestimable benefit and they will increase in the future.

The 12 Federal Land Banks are located at
Springfield, Mass. New Orleans, La. Wichita, Kan.
Baltimore, Md. St. Louis, Mo. Houston, Tex.
Columbia, S. C. St. Paul, Minn. Berkeley, Calif.
Louisville, Ky. Omaha, Nebr. Spokane, Wash.



Spring Fashions

No. 6783.—Girls' dress. Cut in four sizes: 6, 8, 10 and 12 years. A 12-year size requires 3½ yards of 38-inch material. The skirt of ribbon requires two yards. Price 15c or two for 25c.

No. 6786.—Ladies' dress. Cut in five sizes: 34, 36, 38, 40 and 42 inches bust measure. A 38-inch size requires 3½ yards of 38-inch material. Price 15c or two for 25c.

No. 6767.—Ladies' dress. Cut in six sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. A 38-inch size requires 4¼ yards of 36-inch material. To finish with bias binding, requires 9½ yards 1½ inches wide. Price 15c or two for 25c.

No. 6661.—Misses' dress. Cut in three sizes: 16, 18 and 20 years. An 18-year size requires 4½ yards of 38-inch material. For yoke collar and tie of contrasting material ½ yard is required. 39 inches wide, cut crosswise. The width of the dress at lower edge of lower flounce, with fullness extended is 2½ yards. Price 15c or two for 25c.

No. 6785.—Girls' dress. Cut in four sizes: 6 months, 1, 2 and 3 years. A 2-year size requires 1½ yards of material 35 inches wide. The tab trimming of lace requires ¼ yard 1½ inches wide. To finish with lace edging requires 3¼ yards. For ribbon bow 1-1½ yards is required. Price 15c or two for 25c.

No. 6775.—Misses' dress. Cut in three sizes: 16, 18 and 20 years. To make dress suit bolero for an 18-year size requires 4-1½ yards of 38-inch material. The dress without the bolero requires 3¼ yards. To line bolero requires 1½ yards 35 inches wide. Price 15c or two for 25c.

No. 6780.—Ladies' blouse. Cut in five

sizes: 34, 36, 38, 40 and 42 inches bust measure. A 38-inch size without long sleeves and without hip facings will require 1½ yards 39 inches wide. To make with long sleeve portions and neck and hip facings will require 2½ yards. Price 15c or two for 25c.

No. 6664.—Ladies' morning frock. Cut in four sizes: small, 34-36; medium, 36-40; large, 42-44; and extra large, 46-48 inches bust measure. A medium size requires 3¼ yards of 36-inch material. For collar, belt and pockets of contrasting material ¾ yard of 36-inch material is required. Cut crosswise. The width of the dress at lower edge with fullness extended is 2½ yards. Price 15c or two for 25c.

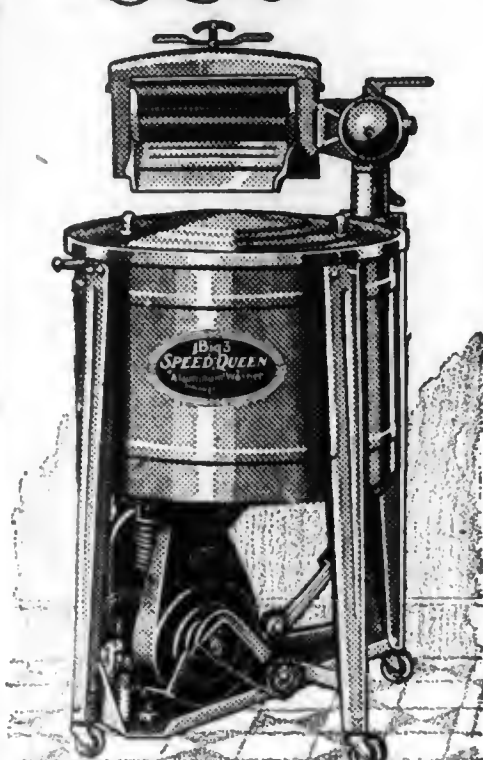
No. 6791.—Girls' dress. Cut in four sizes: 2, 4, 6 and 8 years. A four-year size requires 1½ yards of material 35 inches wide. To trim with lace requires 3¼ yards. Price 15c or two for 25c.

No. 6776.—Ladies' slip. Cut in four sizes: small, 36-38; medium, 38-40; large, 42-44; extra large, 46-48 inches bust measure. A medium size requires 2½ yards of 36-inch material. Price 15c or two for 25c.

HOW TO ORDER

Write your name and address of each pattern. Price 15c each, two for 25c. Send stamps or coin. Our Fashion Magazine will help in preparing your wardrobe. Copy only 10c. Address Pattern Department, Pennsylvania Farmer, 7301 Penn Ave., Pittsburgh, Pa.

Like handing you
\$50



If \$50 were handed to you as a gift, it would be about the same as the saving you make on a Speed Queen. Because this nationally famous Aluminum Washer sells for \$50 less than other machines of similar high quality. You can make thorough washing tests—side-by-side comparisons—and you will find the Speed Queen equal to any of the highest priced machines in every respect. Compare guarantees. No washer carries a stronger written guarantee than the Speed Queen. If a saving of \$50 is important to you—mail the coupon below for interesting folder describing the SPEED QUEEN and also giving the name of our dealer in your town.

Note These Quality Features:
Large Ballroom Winder Rolls
Polished Aluminum Tub
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Standard Capacity
Double Walls to Keep Water Hot
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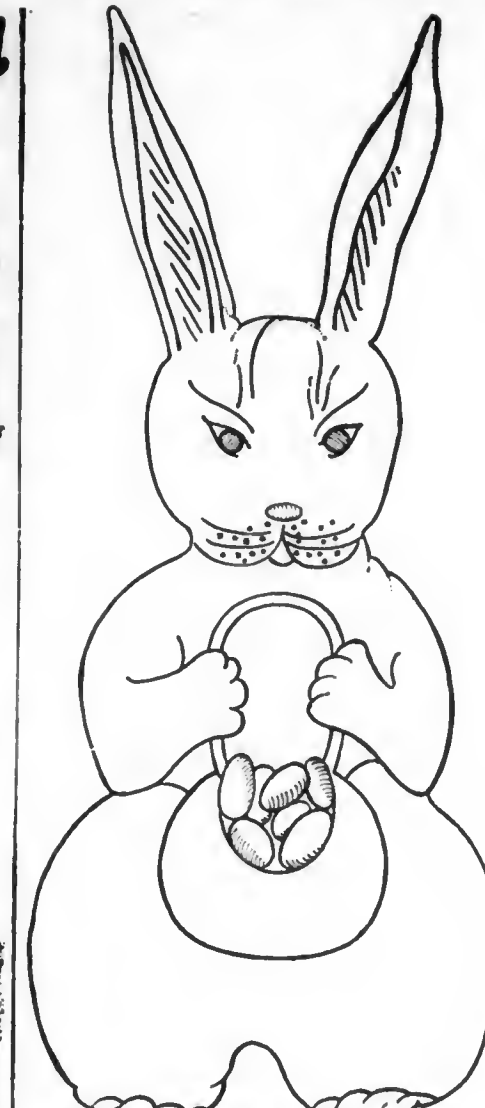
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A REAL EASTER BUNNY—No. 3561

THE thrill and pleasure that comes to every kiddie in the home, with the arrival of Easter and the Bunny who hides his vari-colored eggs all over the house, can now be prolonged throughout the entire year. We have originated this large and most attractive design of the Bunny Doll, carrying a basket in which are shown the wonderful Easter eggs in many colors. He has also the great long ears that every child will be glad to fondle and caress.

It is 21 inches in height by about nine inches in width and comes already stamped for the simple embroidery on fine quality Venetian cloth in green only, enough material being furnished for both front and back of doll. Price of the doll, post-paid to any address, is only 35c; if you wish us to include sufficient floss for completely finishing the embroidery, the price is fifty cents.

Address: Embroidery Department, Pennsylvania Farmer, 7301 Penn Ave., Pittsburgh, Pa.

Hunt Up "Handy Anne"

HANDY Anne spent a day in my kitchen lately and when night came many things had been done that save my time, temper, footsteps and strength. First we raised the wood-box so that the top is on a level with the top of my range. Two empty dynamite boxes were slipped under it, and now I need not bend over double when the box is nearly empty.

Two small wooden boxes were fastened with screws on the inside of the big cupboard doors. The long shallow box holds my egg beater, cookie cutters, funnel, egg separator and strainer. The deep box holds the food chopper. All I need do now is open the cupboard door and there are my tools, no hunting, no bending. The inside of these cupboards and these handy boxes were then painted a cheerful straw yellow.

Another cupboard holding household necessities not often used or needed has a long narrow door. Here we fastened a strip of old inner tube from top to bottom of this door. We then used tacks and spaced off proper lengths of tube to hold small wrenches, files, screw drivers, pliers and a small hammer. In the spacing we were careful not to use the space opposite a shelf. Just tack that portion flat and tight in the beginning, then no mistakes will occur.

Now we wonder why we didn't think of some of these little helps long ago. It pays to investigate our kitchens. Then some rainy day when the handy man is fidgety let him be "Handy Anne" and use the means at hand to improve your kitchen workshop.

Mrs. E. A. Kern.

TWO HELPERS INSTEAD OF ONE IN EVERY BAR
That's why

FELS-NAPTHA WASHES COLORS SAFELY

FELS-NAPTHA is particularly easy on colors for a very good reason.

You've heard of naphtha. It's the safe, effective dirt-loosener used in dry cleaning. There is plenty of naphtha in Fels-Naptha. Your nose tells you so! Plenty of naphtha combined with good golden soap. Working together, these two cleaners give extra help that gets dirt out but leaves colors in. Moreover, this extra help loosens dirt without hard rubbing even in cool water, which is a real advantage in washing colors.

And don't forget that Fels-Naptha's biggest job is the family wash. Here, too, it's always ready to give you extra help—whether you use it for soaking

or boiling, in tub or machine, in hot, lukewarm or cool water. And because it works quickly and gets your hands out of water sooner, Fels-Naptha helps keep your hands nice. Get a few hers at your grocer's today.

FREE—a Fels-Naptha Chipper. Many women who chip Fels-Naptha into washing machine, tub or basin find it handier than a knife. Use it and Fels-Naptha to make fresh, golden soap chips (that contain plenty of naphtha) just as you need them. Sent free and postpaid on request. Write today. Dept. 7-3-15. Fels & Company, Philadelphia, Pa.

THE GOLDEN BAR WITH THE CLEAN NAPTHA ODOR

FELS-NAPTHA



Don't let SORE THROAT get the best of you..

FIVE minutes after you rub on Musterole your throat should begin to feel less sore! Continue the treatment once every hour for five hours and you'll be astonished at the relief you'll experience.

Working like the trained hands of a masseur, this famous blend of oil of mustard, camphor, menthol and other ingredients brings relief naturally. It penetrates and stimulates blood circulation and helps to draw out infection and pain. Used by millions for 20 years. Recommended by doctors and nurses.

Keep Musterole handy—bars and tubes. To Mothers—Musterole is also made in milder form for babies and small children. Ask for Children's Musterole.



PAPER YOUR HOME
You can paper the average room with high-grade artilevel wallpaper for as little as 50¢ by buying direct at lowest wholesale prices. Send for big free catalog. Not the usual small mail order catalog but a large book showing scores of artistic designs for ceilings and borders as well as walls. Write today.
PENN WALL PAPER MILLS
Dept. 63 Philadelphia, Pa.

ACHES & PAINS
Quick Relief With JAPANESE OIL
"Don't Let Pain Keep You At Home"
Used by millions of busy people instead of hot water, heat, electric heaters, Gelsol, Salve, Ointment, Liniment, etc. Rheumatism, Neuralgia, Sprains, Muscle Pains, Stiff Joints, Chest Coughs, Sore Throat. Rub it on, it breathes antibiotic vapor for relief. Rub it on, it generates a pleasant soothing warmth that drives out pain quickly. Won't burn or irritate your skin. 46 years success behind it. At drug or general stores.

WALL PAPER
THE HOME BEAUTIFIER
You can buy wall paper as low as 4¢ per single roll of 8 yards. Large selection of Patterns and Colors suitable for every room of the house. We pay postage on all orders. Send for free catalogue.
CLYMAN WALL PAPER HOUSE
1511 N. 21st Street Philadelphia, Pa.

WOOL
—BLANKETS—
—BATTING—ROBES—
and Colonial Dressings. Made from your own wool. Also sold direct, if you have no wool. Beautiful goods that give satisfaction and long wear. Write for catalogue and samples. Prices reasonable.
WEST UNITY WOOLLEN MILLS, 107 Lynn St., West Unity, Ohio

Read the Advertisements
they keep you to the fore of modern life. Through advertisements you've laid down the shovel and the hoe. You can buy a whole harvest ready-to-eat in cans. You've hung up the fiddle and the bow, for a radio. There's little old-time work left in this age of amazing short-cuts. Read the advertisements carefully and when answering them, say you saw their ad in Pennsylvania Farmer.

These pullets are part of the flock that F. E. Lewis, of Nankin, Ohio, saved out of the 1975 chicks he raised last spring. Figured at a dollar apiece, the 987 are worth \$987. He sold the roosters for \$506.95. Roosters and pullets both add up to \$1493.95. They cost him \$553.21. That's figuring feed, heat, cost of the chicks, cost of Dr. Hess Poultry Pan-a-min, cost of everything at 10 weeks. Subtracting this \$553.21 from \$1493.95 leaves him \$940.74 net profit. He gave these chicks Dr. Hess Poultry Pan-a-min regularly from the day they were old enough to eat.



1975 chicks lived... 25 died

POULTRYMAN F. E. Lewis, of Nankin, Ohio, had 2000 chicks just out of the shell on April 9 of last spring. Ten weeks later he still had 1975 of them... alive... healthy... past the danger age. He had raised all but 25 of those 2000 chicks.

He had raised more than 98% of this big brood while many poultrymen were raising only 60% and less.

These chicks were fed a good starting ration, supplied with fresh water, handled carefully... and one thing more in addition to feed and care. They received Dr. Hess Poultry Pan-a-min regularly from the time they were old enough to eat.

Dr. Hess Poultry Pan-a-min contains a

full supply of minerals which are essential to the rapid growth of feathers. It contains tonics to promote appetite, keeps chicks hungry and hearty, which enables them to resist the ravages of disease. Pan-a-min chicks live where others are dying. They grow and develop into quick profit. (See profit figures above the picture.)

Take your chicks through the doubtful weeks with Dr. Hess Poultry Pan-a-min this spring. Shield them from sickness and bad weather. It'll cost you only a penny a chick for ten weeks. It'll pay you profit in lives saved... whether you are raising two thousand or two hundred.

Dr. Hess & Clark, Inc., Ashland, Ohio

Dr. Hess Poultry PAN-A-MIN

A CONDITIONER AND MINERAL SUPPLEMENT

5 Lb. Leghorns

The old reliable Heavyweight stock. Produced High Up on Pennsylvania's healthy mountain top. Get your chicks from certified record strains above 300 eggs. R. O. P. Hollywood, Tanerred, Baron Matings. Hatch weekly pure white eggs up to 24 ounces per dozen.

Beautiful Color Plate Leghorn Catalogue Free

FARM SERVICE

Route 510, Tyrone, Penna.

Keep up with the advertisements to keep pace with progress. When answering them say you saw the ad in Pennsylvania Farmer.

BABY CHICKS

100% Live Delivery Postage Prepaid
Wh. and Br. Leghorns... \$5.00 \$11.00 \$22.50
Buff and Bl. Leghorns... 6.00 11.00 22.50
Australorp... 6.00 11.00 22.50
Barred Rocks... 6.50 12.50 25.00
Wh. and Buff Rocks... 6.50 12.50 25.00
N. O. and R. C. Rocks... 6.50 12.50 25.00
S. F. H. Minors... 6.50 12.50 25.00
Wh. and S. L. Wyandottes... 7.50 14.00 27.50
Buff Orpingtons... 7.50 14.00 27.50
All absolutely first-class purebred stock from culled flocks. Prompt shipments.

JAMES G. KREICI, Cleveland, Ohio

BROODER HOUSES

Most substantial houses made. Complete line. Exclusive features. Perfect ventilation, no sweating. Easy to heat. Satisfaction GUARANTEED. Special prices for early orders. Catalogue sent free. Write today.

THE THOMAS & HUGHES COMPANY, Dept. 13, London, Ohio

Zeller's Extra Quality

PURE-BRED CHICKS FROM PURE-BRED STOCK
S.C.W. Leghorn Chicks

PENNA. STATE CERTIFIED and BLOOD TESTED
Flocks culled and tested by state officials. All mailings handled by 200 to 250-egg males. 24-oz. eggs, 5-lb. broods. Best money-makers. \$10-100; \$177-500; \$150-1,000. 10% books order.

EDGAR A. ZELLER

2014 Manada St., Harrisburg, Pa.

Navy Brand Concentrated Buttermilk

From Tuberculin Tested Cows
28 per cent milk solids, 6.6 per cent lactose, thick as custard with no fat or oil ingredients. Reduces ice-picking and lessens danger from overfeeding. Increases egg production and promotes fertility and hatchability. Good for chicks, broilers and laying hens. Sold direct from the factory in barrels of about 485 lbs. Write for price.

TITUSVILLE DAIRY PRODUCTS CO., Titusville, Pa.

Read through this paper carefully. You will find advertisements covering almost every human need. They are filled with hints for the household, hints for health, hints for clothing. Also large numbers of seed, poultry, stock food and implement advertisements. When answering them, mention Pennsylvania Farmer.

I Sell Dressed Birds

MY specialty is selling dressed chickens at the flat price of \$1 apiece from the time the chickens have reached the broiler stage until the last of the surplus is gone in the late summer or fall. I have sold as many as six hundred of these birds in a season, which means a nice lump of money for a farm woman to enjoy. Of course there are eggs also to sell but for me the dressed chickens pay the better profit, and the work of dressing and marketing is not so confining as the close attention necessary to high-powered egg production.

Because I supplied about forty regular customers in Pikesville, Maryland, with butter once a week the opportunity was afforded me to supply dressed chickens as well. My butter customers spread the news of my nice fat birds and the orders therefore increased. The most I ever had to dress in a single day was twenty-seven chickens. Almost any of the delivery days through the season the demand is for ten or a dozen and the orders come to me over the telephone.

Customer Satisfied

This is an age of service in business. You see it demonstrated everywhere. If the quality of the service is on a par with the public requirement not much objection to the price is ever made. I applied this truth to the business of selling dressed chickens. I discovered that women in town as a rule do not like to draw the carcass and much less do they like to cut it up in pieces. So I prepare the fowl to suit the customer's choice, drawing it for the roast or dividing it for the pot or the frying pan. Very seldom is a customer so penurious that she will object to the flat price of a dollar.

My first chickens are sold when their weights are about two and one-half pounds each. Last year I received 50 cents a pound for the first ones, or about \$1.25 apiece, because of extra earliness and the high prices in the regular market.

Looking forward to the dollar price for the dressed poultry I send the eggs of my own Barred Plymouth Rocks to a commercial hatchery in time for hatching, about March 1st. This plan seems more economical and convenient for me than that of fussing with incubators at home, where there is plenty of work to do anyway.

The chicks are grown like any others through the starting and growing mash periods, but as they become large enough for sale, lot by lot they are put on a commercial fattener to be fed about ten days. Fat chickens, the same as drawn or cut up ready for the cooking, please the women of the better appointed homes that I visit.

Because our farm is not more than five miles from the city, delivery of special orders for dressed poultry is soon accomplished, but the bulk of the orders are received for Saturday delivery, when also about 25 or 30 pounds of butter are due for the same trip. Altogether these make a nice weekly income. Mrs. J. P. Nawrot.

Green Feed

EXPERIMENTS to determine the effect of feeding on fertility have shown that green legumes, such as clover and alfalfa, are important in giving fertile eggs. Alfalfa leaf meal is also good in this respect. I put 50 pounds of alfalfa leaf meal in my mash mixture, which weighs about 600 pounds per batch, and got 85 per cent fertility in eggs gathered during the fore part of January, from hens which were confined to the buildings. In using alfalfa in the mash, be sure to get the leaf meal rather than the ground alfalfa, which contains the stems and is too bulky and full of fiber for poultry feeding. R. L. S.

THE all-mash ration for baby chicks as fed at the Experiment Station farm, New Brunswick, provides the nutrients necessary for good growth and development with a minimum expenditure of labor by the poultryman.—N. J. Exp. Station.

Danger of Infection Among Baby Chicks

Success in raising baby chicks is dependent upon proper care and management. Readers are warned to exercise every sanitary precaution and beware of contaminated drinking water. Baby chicks must have a generous supply of clean water. Drinking vessels harbour germs and ordinary drinking water soon becomes contaminated and may spread disease through your entire flock and cause the loss of half or two-thirds your hatch before you are aware. Don't wait until you lose half your chicks. Take the "safety" in time that comes now. Remember, that in every chick—danger of diarrhea in one form and other loose bowel and intestinal troubles. Don't let a few chicks infect your entire flock. Give Tablets in all drinking water the first two weeks and you won't lose one chick where you lost dozens before. These letters prove it:

Bradshaw's Remarkable Success in Raising Baby Chicks

Dear Sir: I see reports of so many raising their little chicks, so thought I would tell my experience. I used to lose a great many of the little downy ones from bowel troubles, tried many remedies and was about discouraged. At last resort I sent to the Walker Remedy Co., Dept. 500, Waterloo, Iowa, for their Walko Tablets for use in the drinking water of baby chicks. I used 50c packages, raised 300 White Leghorns and never lost one or had sick after using the Tablets and my chicks are larger and healthier than before. I have found this Company thoroughly reliable and always the remedy by return mail.—Mrs. M. Bradshaw, Beaconsfield, Iowa.

Never Lost One After First Dose

Mrs. Ethel Rhoades, Shenandoah, Va., writes: "My first incubator hatch when but a few days old, began die by the dozens. I tried different remedies and was about discouraged at the chicken business. Finally I sent to the Walker Remedy Co., Waterloo, Iowa, for a box of their Walko Tablets to be used in the drinking water for baby chicks. It's just the thing to keep the chicks free from disease. We raised 700 thrifty, healthy chicks and never lost a single chick after the first dose."

You Run No Risk

We will send Walko Tablets entirely free of risk—postage prepaid—so you can see for yourself what a wonderful remedy it is when used in the drinking water for baby chicks. So you are protected—as thousands have proven—it will reduce your losses and, while, treble, even quadruple your profits. Send 50c for a package of Walko Tablets (or \$1.00 for extra large package) in all drinking water and get results. You'll find you won't lose a chick where you lost dozens before. It's a positive fact. You run no risk. We guarantee to refund your money promptly if you don't find it the best little chick saver you ever used. The Pioneer National Bank, the largest and strongest bank in Waterloo, stands back of our guarantee.

Walko Tablets are sold by leading druggists and poultry supply dealers. WALKER REMEDY CO., Dept. 500 Waterloo, Iowa

Success with Your Planting

Depends upon the quality of the trees, plants, shrubs, etc., you buy. You save time, money and disappointment when you get the best quality stock available. Our stock will be from healthy, vigorous and true trees. We have a complete assortment of Fruit and Shade trees, small fruits, roses, shrubs, etc. We can make you a list of trees and shrubs. Catalogue sent free. Write today.

HOOD & CO., Dept. P.F., Richmond, Va.

LADDERS
COMPLETE WITH ROPE AND LOCKS
ANY LENGTH
WE PAY
THE FREIGHT
HARDWOOD RUNGS - BEST MATERIALS
ALTERNATE BOX 11, INTERLAKEN, N.Y.

Horticulture Bees and Spray

Two years ago I got a hive of bees, and we do not want to give them up. Our apple orchard, however, will have to be sprayed more thoroughly if we want useable apples. We tried to spray at the right times according to our county agent's notices in the local paper, but we did not spray while the apples were in full bloom on account of the bees. Several people in the vicinity did spray then and had nearly perfect apples. We had railroad worms and some form of rust till our apples were useless.

We used lime-sulphur, arsenate of lead, and nicotine sulphate according to directions from our agricultural teacher at high school.

Mrs. Raymond Hower.

THE material in your spray that kills the bees is the arsenate of lead, not the lime-sulphur or nicotine. If it becomes necessary to spray while the trees are in bloom, arsenate of lead should not be added. The other materials may be used, and will help to control the pests that are most dangerous at that time, the lime-sulphur for fungous diseases, as scab, and the nicotine for plant lice.

Rarely, however, is it necessary or desirable to spray when the trees are in full bloom; very few commercial fruit growers do. A safe rule is to wait until two-thirds of the petals have fallen. Spraying trees while in bloom may injure the blossoms and reduce the set of fruit. Dusting, with sulphur alone, does not injure the blossoms.

The "trust" you speak of may have been caused by too strong a spray solution and unfavorable weather; russeting was quite common last year. Follow your County Spray Service, but do not spray while the trees are in bloom; you owe this much to the bees, which aid in the setting of fruit, by carrying the pollen from blossom to blossom. S. W. F.

Pruning Problems

It is up to me to do some pruning and grafting work this spring. I am a greenhorn. If you can help me out I shall be most thankful to you.

Wm. F. Dills.

THE type and amount of pruning depends on kind of fruit, variety, age and condition of the tree. Peaches are commonly pruned much more severely than apples; thick topped, twiggy varieties, like Rome, require more pruning than open growers, like Stayman; young trees, not yet bearing, should be pruned much less heavily than old trees. Each tree is a new pruning problem, requiring judgment in the application of these principles.

In general, the pruning of young trees should be directed mainly to forming a well-balanced framework of scaffold limbs, spaced far enough apart to make breakage unlikely. The less a young tree is pruned beyond what is necessary to shape the top, the better; heavy pruning reduces the leaf surface, retards growth and delays the time when it will come into bearing.

The older the bearing trees, the more severely should they be pruned. This will consist mainly in thinning out the crowding branches and twigs so that sunlight may strike through the tree.

Heading back the main branches to side limbs is desirable only when old trees are to be renewed in top; it is more commonly practiced with peaches than with apples. It is better to cut out many small branches and twigs all over the outside of the tree than a few big limbs on the inside of the tree. Pruning may be done to advantage any time that the wood is not frozen and until blossoming time. Only when large limbs are removed from the trunk do wounds need to be painted; thick white lead paint is best. Burn the prunings; do not leave them in piles on the edge of the orchard. S. W. F.

SPREAD of noxious weeds can be prevented, to a large extent, by careful handling and buying of seed.

Hoffman FARM SEEDS



Hoffman Seeds are cleaned and re-cleaned. No foul weeds. Germination tested. Hardy, vigorous, quick-starting.

"The most wonderful crop of corn in this part of the country. People came from all over to see it," says J. D. Noughton. "Your Shadeland Eclipse oats yielded twice as much as my own seed oats. I shall plant that variety next year and nothing else," says Louis F. Boger. "My neighbors plow up their alfalfa in two or three years. Mine has stood eight years," says Randolph Moler.

Clover: U. S. Verified-Origin. 99% clean—no foul weeds. Germination tested and adapted to your climate. The best seed that can be bought.

Oats: Nine tested heavy yielders. Hardy, Northwest seed. Cleaned clean. Early and mid-season varieties.

Corn: A dozen varieties, for husking and ensilage. Grown for seed and germination assured by our special Corn Drying Process. Lancaster County "Sure Crop," "Long's Yellow Champion," etc.

Potatoes: Best northern grown, disease-free varieties from Maine and Northern Michigan. Irish Cobblers, Green Mountain, State of Maine, Michigan State Certified Russets, etc.

Send coupon today for free samples, catalog and prices.

A. H. HOFFMAN, Inc.,
Box 417, Landisville,
Lancaster Co., Pa.

A. H. HOFFMAN, Inc.,
Landisville, Pa.
Please send catalog and information.

Name
Address
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READ THE ADVERTISEMENTS TO RECOGNIZE PRODUCTS THAT ARE WORTHY OF YOUR CONFIDENCE

USE WARNER LIME UNIFORM HYDRATES ACT QUICKLY—DO NOT BURN.

50 lb. paper bags—easy to handle

"LIMOID" "KNICKERBOCKER" "MERION"

Approved by Quality Lime Institute.



ASK YOUR DEALER

CARFF'S BERRY PLANTS

Crown in the Heart of Ohio

1400 acres of most fertile soil. Small fruit plants and ornamentals a specialty. Healthy, vigorous stock.

Viking Red Raspberry—Latham Red Raspberry—Van Fleet Red Raspberry—Youngberry (Young Dewberry)—New Logan Black Cap—more resistant to mosaic—Gallia Beauty Apple—red strain of Rome. These outstanding new varieties and the best of the standard kinds are fully described in our new catalog.

EVERGREENS Beautify your home with Scarff's Evergreens—Flowering Shrubs—Trees—Roses—Perennials and Hedge Plants. Our assortment of varieties is complete and prices reasonable.

SCARFF'S SEED CORN

CASH—Very early, heavy yielder, deep grain, small cob, medium stalk, fine feeding corn.

CLARAGE—Mid-season variety, produces well, good grain, medium to large fodder, general favorite.

Also, Blue Clarage, White Cap, Early Mammoth, Heids Yellow Dent and Eagle large varieties. Send for FREE Copy of our Catalog.

Everything for Farm and Fruit Garden

W. N. SCARFF'S SONS

Box P-30 New Carlisle, Ohio

DEPENDABLE NURSERY STOCK

APPLE TREES
Baldwin, Cortland, Hellenburg, Greening, McIntosh, Red, Northern Spy, Wealthy. 2 yrs. 1 to 6 feet, 25c each. \$20.00 per 100.

PEACH TREES
Elberta, Hale, Hohenstein, South Haven, Yellow, St. John, 2 to 4 feet, 25c each; 2 to 2 1/2 feet, 15c each; \$10.00 per 100.

CONCORD GRAPE VINES
1 year, 10c each \$5.00 per 100
2 years, 15c each \$8.00 per 100

BUTTERFLY BUSH
Strong Plants, 25c each.

VIKING RED RASPBERRY
Berries large, firm, quality good, very productive, ripens early, berries bright red, juicy on market. Arrives in Canada. Our plants come direct from originator's farm, Prof. Hesse, Canadian Horticulturist.

Many other items at special prices. A dollar saved is a dollar made. All stock offered strictly first-class, and guaranteed absolutely true to name. Send for FREE Catalog.

"The Home of Good Nursery Stock"

THOMAS MARKS & CO.
NURSERYMEN AND FRUIT GROWERS
WILSON, N.Y.
NIAGARA CO.

Reading Bone Fertilizer Co.

READING, PA.

Distributors for

Dow Sprays
In Pennsylvania
Arsenate of Lead, Calcium Arsenate, Magnesium Arsenate, Dowco, Bordeaux, Dry Lime Sulphur, Dow Special Potato Spray.

A complete line of Insecticides and Fungicides on hand in Reading. Bring your spray problems to us.

FRUIT TREES

Seeds—Berry Plants—Ornamentals
1 1/2 ft. Apple, 2 1/2 ft. Peach, for each postpaid. Guaranteed stock. Farm, Plant and Garden Seeds. We have Southern Fruit Trees, Evergreens, Shade Trees, etc. in full stock. Free 1929 catalog has everything for Garden, Farm and Lawn.

Allen's Nurseries & Seed House

Box 9, Coates, Ohio

STRAWBERRY PLANTS

Premier \$1.50 per 1,000; 5,000, \$20.00
Chenamo \$1.50 per 1,000; 5,000, \$20.00
Mantoloking World's Best Strawberry, \$1.25 per 100; 5,000, \$10.00. Healthy, vigorous, true to name plants, fresh dug to your order and guaranteed to reach you in good condition. 50 leading varieties at reasonable prices. Write for my FREE catalogue before buying and save money. A postal will do.

M. S. PRYOR, R. D. 1, Salisbury, Md.

SEED POTATOES of Quality Glover Leaf Rural Russet, one year removed from N.Y. Also French Mountain No. 1 Russet \$1.50 per bush, 120 lbs. Each. J. A. STONER, Lemasters, Franklin Co., Pa.

Garden and Truck Crops

By GILBERT S. WATTS

Cucumber Beetles

I noticed in some agricultural paper about a year ago (perhaps not yours) that camphor balls placed on melon hills on the surface or slightly covered prevented their plants from destruction by insects that feed on or near the surface. Do you think that such is a fact? A. C. Garrett.

ALTHOUGH I have no experience in using camphor balls to cover insects off cucumber and melon hills it is possible that they would be of some value, but probably would be too expensive except on a small scale.

The standard repellent for cucumber beetles is one pound of calcium arsenate mixed with 20 pounds fine ground gypsum (or pulverized limestone if gypsum is unobtainable). Hydrated lime may be used but is likely to cause stunting of the plants if heavy applications are required.

In very warm, mild weather nicotine dusts are effective. G. S. W.

Asparagus

On going over your article "Asparagus Tips" in January 25th issue I would like to have some advice on same. You mention width but not depth. What would be the right depth to plant roots? What is the best fertilizer for asparagus? How often should it be limed? Wm. Taylor, Jr.

It is the usual practice to apply lime before planting if the land is sour and to lime even after the bed has come into bearing if an acid condition develops.

Fertilizer practices vary greatly. One program that has given good results has been to work 1,000 pounds per acre of 5-8-7 into the soil before the cutting season begins and to apply 1,000 pounds more of the same material at the end of the cutting season. In addition 200 pounds per acre of nitrate of soda and 150 pounds of muriate of potash are applied early in August. Finally 200 pounds of nitrate of soda is applied the first week of September.

It is customary to plant about eight inches deep but in a shallow soil I would rather plant six inches deep than have the roots set in raw subsoil. An inch or two of covering will be sufficient at first, a little soil being worked into the trench at each cultivation until the surface is leveled. G. S. W.

To Kill Gophers

Will some of the many readers of the Pennsylvania Farmer tell me how to rid my garden of gophers? Please publish remedy. T. K. Ransom.

GOPHERS, and groundhogs too, may be killed by saturating a corn-cob, ball of cotton waste or other absorbent material with carbon bisulphide and pushing this plug as far into the burrow as possible. Immediately close all openings with earth so that the gas which will be given off will not escape. Keep carbon bisulphide away from lights and fires as the gas is very inflammable. Also avoid breathing it.

Granulated calcium cyanide may be used in much the same way, simply inserting the material in burrows and closing all openings.

If you wish to use a poison a formula that is popular in California follows: Sweet potatoes, parsnips, or carrots, 4 quarts; flour paste, 1/4 pint; strychnine alkaloid, powdered, 1/4 ounce; saccharine, 1-32 ounce.

Procure the last two items at a drug store and stir into the cooked flour paste. To compel the gopher to eat the vegetables immediately instead of storing them cut into pieces not less than three-quarters of an inch in diameter. Pour the poisoned paste over the cut vegetables and mix thoroughly. Probe the ground around an exit until the main runway is found. Remove the probe, drop one of the

cubes into the runway and close the hole. Kick down all old mounds so that new ones will show where to place poison to get the survivors. G. S. W.

Premature Celery Seeding

INVESTIGATORS have established quite clearly that development of seed stalks instead of marketable celery is primarily the result of long continued low temperatures while the plants are small. Prof. H. C. Tompson of Cornell University states:

"Subjecting young celery plants to relatively low temperature (40 to 50 degrees F.) for two weeks or longer is likely to result in premature seeding. When plants are hardened in the cold frame in early spring, there is always danger of such seeding."

This point was mentioned last summer but with plant growing operations now going at full blast repetition may serve as a reminder.

A RECENT Cornell Bulletin No. 475, calls attention to the fact that three-fourths of the peas grown in Erie county, New York, are of the Thomas Laxton variety. Peter Pan, Laxtonian and Gradus are the only other important low growing varieties. Highest yields have been obtained with plantings at the rate of two and a half or three bushels of seed per acre. The tall late peas are practically all of the telephone type. Alderman, Prince Edward and Duke of Albany are most popular.

Vegetable Bulletins

NUMEROUS requests are received for the names of bulletins on vegetable crops. Those listed below may be secured without charge by interested persons upon application to the respective institutions.

From the Pennsylvania State College, School of Agriculture and Experiment Station, State College, Pa. bulletins: No. 221, Early Cabbage.

Extension circulars: No. 93, Protecting Cabbage from the Root Maggot; No. 122, Vegetable Garden Insects; No. 123, The Family Vegetable Garden.

From the Pennsylvania Department of Agriculture, Harrisburg, Pa. bulletins: No. 413, Greenhouse Fumigation; No. 447, Mexican Bean Beetle; No. 448, Weeds, Eradication and Control; No. 454, Direct Marketing of Farm Products in Pennsylvania.

From U. S. Department of Agriculture, Office of Information, Washington, D. C. Farmers' Bulletins: No. 937, The Farm Garden in the North; No. 829, Asparagus; No. 289, Beans; No. 433, Cabbage; No. 1269, Celery; No. 1320, Cucumbers in Greenhouses; No. 1318, Greenhouse Construction and Heating; No. 1418, Lettuce Growing in Greenhouses; No. 354, Onions, culture; No. 1233, Tomatoes for Canning and Manufacture; No. 1338, Tomatoes as a Truck Crop; No. 1431, Greenhouse Tomatoes; No. 1371, Vegetable Diseases and Insects; No. 1250, Green Manuring.

Hot-Bed Construction

Would like to know if you have a pamphlet or bulletin on hot-bed construction. J. T. Robson.

IF you will write the New Jersey State College of Agriculture, New Brunswick, N. J., and request a copy of Extension Bulletin No. 51, entitled "Plant Growing and Plant-Growing Structures," you will receive without charge what is considered one of the most complete and up-to-date publications on the subject. You will find therein numbers of extremely clear and helpful photographs. G. S. W.

Eureka

SPRAYERS

Traction or Power

Do the biggest, most important job in raising field crops and fruit. Increase yield 50 to 200 per cent. Improve quality. Insure investment by destroying bugs, preventing mold and blight.

Traction Sprayer has 1, 2 or 3 nozzles per row; 4, 6 or more rows per boom. Wheels adjustable to width of rows. 60 to 100 gal. tanks. Double or triple action pumps. Thousands of satisfied users.

Combination and Power Sprayers for orchards, groves, and field crops, have 2 cylinder pump; pressure regulator; several sizes of engines and tanks for pressures 200 to 400 lbs. with spray booms and guns.

In stock near you. Write for Catalog on Eureka Sprayers

Eureka Mower Co., Box 1406, Ufa, N.Y.



Get this ALL-PURPOSE BOLENS GARDEN TRACTOR

Ideal for suburban lawns, truck gardens, etc.—saves time and labor—does your plowing, mowing, seeding and cultivating—pulls orchard or field crops—mows your lawn or pulley for belt work. Eight powerful mowers meet your needs. Twenty-two attachments constantly interchangeable. (2)

GILSON BOLENS MFG. CO.

PORT WASHINGTON, WIS.

232 Park Street



To use clean dependable seed is the first step in growing a good healthy crop!

INSIST ON



Every Bag Branded and Sealed Ask Your Dealer!

"FRIEND" SPRAYERS

All are true Friends. MATERIAL "FRIEND" MFG. CO. 123 E. Ave., Chicago, Ill.



An Orchard for \$1.00

Send us \$1.00 and we will send you 12 Choice Apple or Peach Trees, or 6 Apple and 6 Peach. Our Selection, first quality, true to name. All kinds of early, late, Shrimbo, Roses, Dulbs and Seeds. Catalogue FREE.

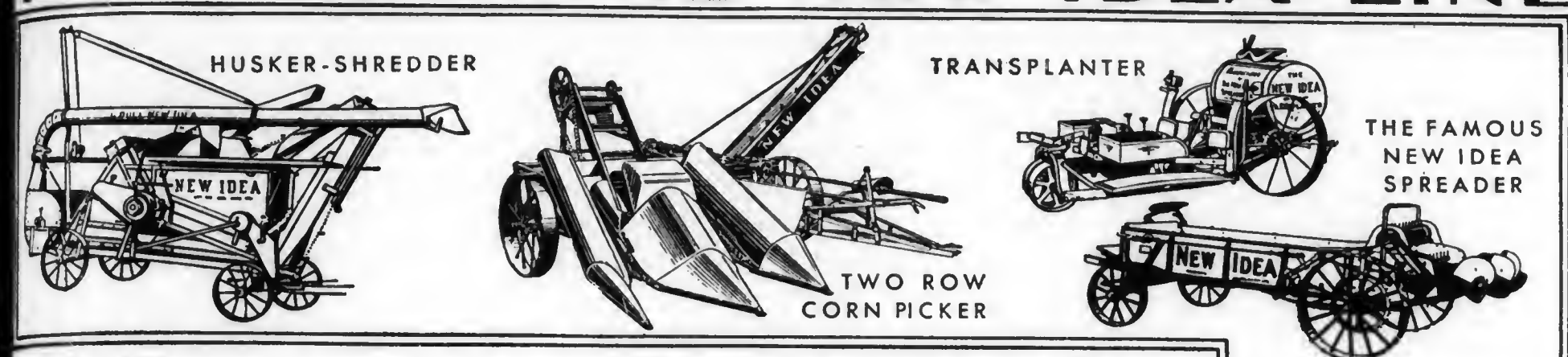
ERNST NURSERIES, Box 5, EATON, O.

HAUCK WEED BURNERS

The modern, sure way to kill weeds. Burns them green, stalks and seeds. Easy, quick, cost half of old methods. Use in corn, soybean, alfalfa, clover, etc. Write for catalogue, farmers, growers, etc. Hauck Mfg. Co., 118 Tenth St., Brooklyn, N.Y.

For Sale Fruit and ornamental shrubs, hedges, etc. Write for catalogue free. MITCHELL'S NURSERY, Beverly.

THE ORIGINAL NEW IDEA LINE

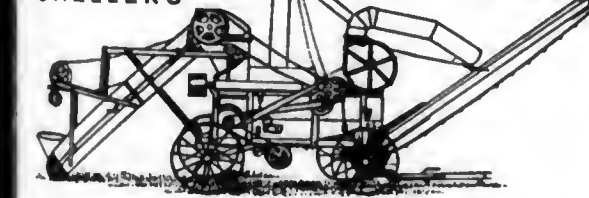


NEW IDEA Announces

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CORN SHELLERS ALL SIZES



PORTABLE GASOLINE ENGINES HAY LOADER



THE SANDWICH NEW IDEA LINE

COMBINED HAY RAKE AND TEDDER



PORTABLE ELEVATORS



The SANDWICH Manufacturing Co.

THE NEW IDEA Spreader is unquestionably the best-built machine of its kind on the market. All other NEW IDEA Farm Machines rank equally high. And right on a par with them in quality reputation are the products of the SANDWICH Manufacturing Company of Sandwich, Ill., whose business and factory we have just purchased and added to our own. SANDWICH machines have won the praise of farmers and implement dealers for nearly 75 years. They will make a notable addition to the NEW IDEA line.

SANDWICH built machines, known as SANDWICH-NEW IDEA machines, are sold through reliable dealers and fully backed by NEW IDEA service and reputation. All NEW IDEA

Branches and warehouses will at all times carry a complete stock of these machines and parts. The Sandwich factory will be continued in operation under NEW IDEA management.

Description of any NEW IDEA or SANDWICH-NEW IDEA machine sent on request.

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BRANCHES: Harrisburg, Pa.; Madison, Wis.; Kansas City, Mo.; Syracuse, N. Y.; Jackson, Mich.; Moline, Ill.; Columbus, Ohio; Indianapolis, Ind.; Minneapolis, Minn.; Oakland, Cal.; Omaha, Nebr.

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Science in agriculture

IN agriculture as in industry, the *practical results* of the work of the scientist are evident on every hand. Indeed, today, "Science is the best dirt farmer in the world."

New York Central Lines urge every farmer to make full use of the research of the highly trained experts tirelessly laboring to make American farming more productive and profitable...It is *good common sense* to keep in close touch with the work of your agricultural college and experiment station either direct or through their extension forces.

Every progressive farmer knows how scientific knowledge, like up-to-date power machinery, can lessen labor and cut down costs in the modern agricultural "business." Call on practical science to help you solve your soil, seed, equipment or marketing problems.



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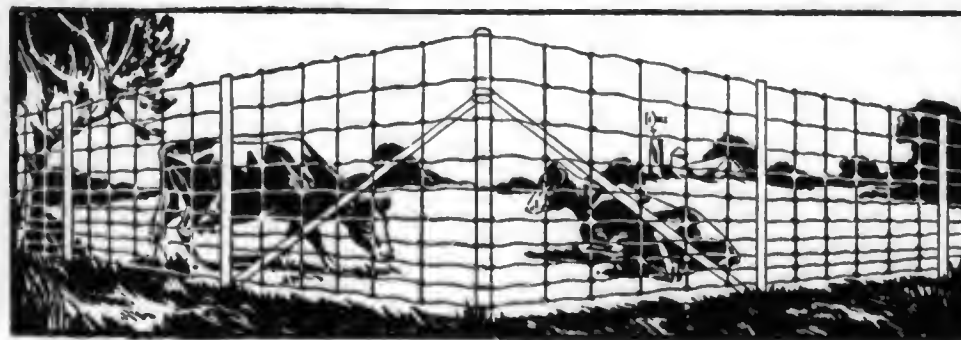
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AT YOUR SERVICE is the attitude of every advertiser in this paper. Write them about your needs. Mention Pennsylvania Farmer.

Increase Farm Profits



by Field Arrangement

Page fenced fields permit definite system of rotating pasture land with cultivated crops. Livestock can be moved from field to



field when necessary to graze on food that would otherwise be wasted and to return fertility to the soil to insure high yields in future crops.

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District Offices: New York Chicago Pittsburgh San Francisco
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PAGE FENCE

America's First
Wire Fence—
Since 1883

A Trader Encouraged

By FRANK K. RICH

"MORE'N ten years back," Caleb Peaslee remarked to Deacon Hyne, "when Peter Gibbons sold out and moved away, I bought a lot of things of him; things I wanted and figured I'd have a use for some time or other. There was a set of double harnesses, for one thing, and a two-inch fence-auger, and a couple of double-bitted axes, and a wind-mill contraption to winnow peas and a number of other things I no need to try to specify; enough to run into considerable money if I'd had to pay full price for 'em—and it about ruined two ten-dollar bills, as it was."

"Do you figger," the deacon demanded a little maliciously, "that you ever got twenty dollars wuth of good out of the whole mess? I'll bet you didn't," he added, forestalling Caleb's reply.

"Well," said Caleb placidly, "I'm goin' to tell you—but fust I want to speak about somethin' else I got. When I'd piled the stuff up, ready to cart away, I found I'd piled it on top of a box mebbe two foot square and when I come to load the truck I'd bought onto my wagon, Peter kicked the box under the pile and he says to me:

"There's somethin' you might as well take along with you," he says. 'I'll throw it in with the trade, so it won't cost you anything—and I'll be rid of it, so we'll both be the gainer.'"

"Glory Box"

"I took hold of the box and hefted on it and it was as heavy 'sif it was filled with lead. 'What's it filled with?' I wanted to know.

"One thing and another," Peter says. 'It's what I've always called my 'glory-box,' and I've kep' it handy to throw things into when they seemed too good to leave away and I've found it useful more'n once.'"

"Well, I didn't feel overly keen to take it, not wanting to clutter my shop up with stuff, but Peter was so sot on me takin' it that when I come to load up the rest of the dunnage I piled that onto the load along with the rest of the stuff; and when I got home I put the box into the corner of the shop and sort of let it go out of my mind for the time bein'.

"And now comes the meat of the whole thing," he explained. "I've never used the double harnesses from that day to this, bein' they was made for a pair of fifteen hund'ud hosses—and my hosses, even if they was fat, wouldn't weigh over twelve hund'ud. And what fence I've built, late years, has been wire, so I've never needed the fence auger. And I took out one of the axes to use and I found it didn't balance the same as a pole-axe, so I couldn't hit twice in a place with it and I made a notch so ragged I was ashamed to look at it. And I c'n buy seed peas cheaper'n I c'n raise and winnow 'em, so the fannin'-mill didn't pay me anything—and so on with the other things I fetched home that time from Peter's."

Fool's Luck

"So you c'n figger, the same as I did, that c'n siderin' I didn't use one single thing that I'd lotted on usin', I didn't make such a very payin' bargain—though mebbe some time I'll sell or trade some of the things and git a part of my money back. I'm hopin' Jed Piper'll feel he wants the harness; his hosses are bigger frame than mine are and mebbe the harness'll fit 'em. I'm goin' to mention it to him, anyway."

"But if I don't git rid of the things at a profit," he went on, "I want to tell you where my satisfaction comes in—and all without aim or purpose on my part—just the luck of the witless, so my wife maintains."

"Out of that glory-box, that I toted away under protest, 's you might

say," he went on complacently, "I've took out old knobs and latches 'nough to fit out five doors in the new ell we built to take care of summer boarders; and I've salvaged staples to fasten thirty rods of wire fence; and brass screws without number for odd jobs 'round the house; and four knives without handles that I've fixed up and ground sharp; and about a dozen bits that'll bore holes from a quarter inch up to an inch—they'd cost me three dollars, s'posin' I had to buy 'em new; and two pretty good wood rasps—and I ain't begun to make a hole in the stuff in that box yit!"

"It's couraged me a lot," he admitted, "and mebbe I'll keep on tradin' when I git a chance, after all. I felt kind of cast down b'fore I found the use of that glory box, and about d'cid-ed I'd quit tradin'—but now I dunno. Mebbe it's as my wife says—the luck of the foolish'll p'tect me, whatever trade I make."

Seventy-Eight Years Ago

THE long evenings were the brightest part of the 24 hours. The boys would lug great logs of oak and hickory into the house and lay them across the andirons. Then the flames would surge up the wide-throated flue and fill the room with a glare of light that made the home-dipped candles fail into insignificant paleness.

Around the tables the family gathered with books. Father took the dear old family Bible and perused its sacred pages, to learn the sweet lessons of love, while mother was knitting or sewing. The boys and girls toasted big apples and ate nuts and popped corn by the open fire. A rich air of good cheer and cozy comfort pervaded the whole room.

There were no outside attractions that drew us young people away unless for a sleigh ride to a neighbor's to a spelling bee or cottage prayer meeting, which in those days were held every Wednesday, Saturday and Sunday night.

Few Want to Return

There was much solid reading in the family circle and as a rule there was companionship in all literary matters. Individual taste could not always be gratified because of the paucity of books, but what one read the others read. Dime novels, love stories and trashy literature in general found no place in the old bygone homes of that age. This literature had not made its way into the homes at that early date.

But in spite of the glamour of the firelight and the stronger glamour that memory and associations cast over those quiet evenings of 78 years ago, few are the wise people who would want to return to those days. The better illuminations that our modern lamps offer is suggestive of the brighter luster that the present gives to other things.

The absence of the open fire we may be permitted to regret. It is true no doubt that foolish fashion removed it. But the many other advantages of today make the past seem narrow and confined. What a flood of literature has been poured out upon the homes by the score since the days of the old tallow candles. The land is now nearly flooded with atheism, infidel and skeptic, also evolution matter.

S. S. W. Hammers.

"I had a'nawful good breakfast," said Johnny.

"So did I," said Emmy Lou, "I had somethin' specially nice that begins with 'N'."

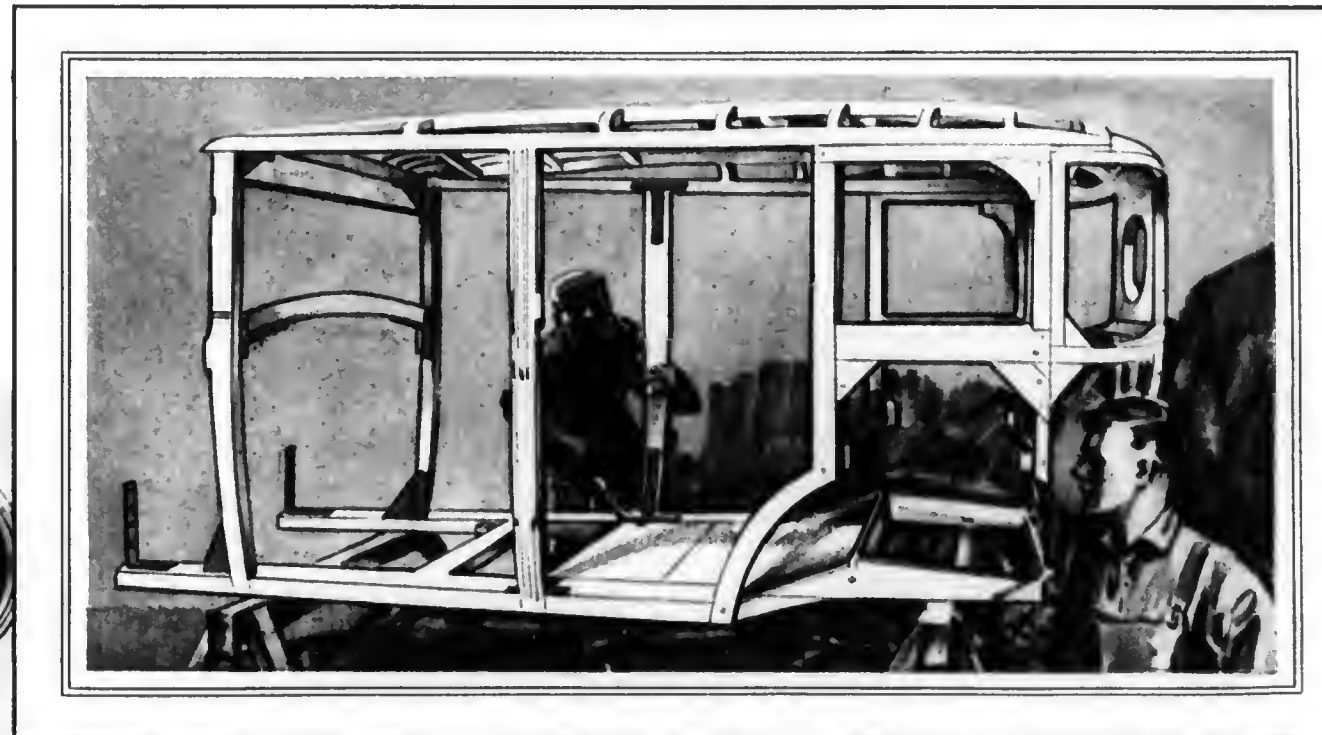
"A norange?" suggested Johnny.

"No."

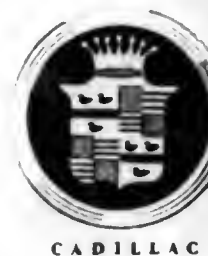
"A napple?"

"No, it was a negg."

Into every BODY BY FISHER is built unusual durability and convenience



LOOK TO THE
BODY



LOOK TO THE
BODY



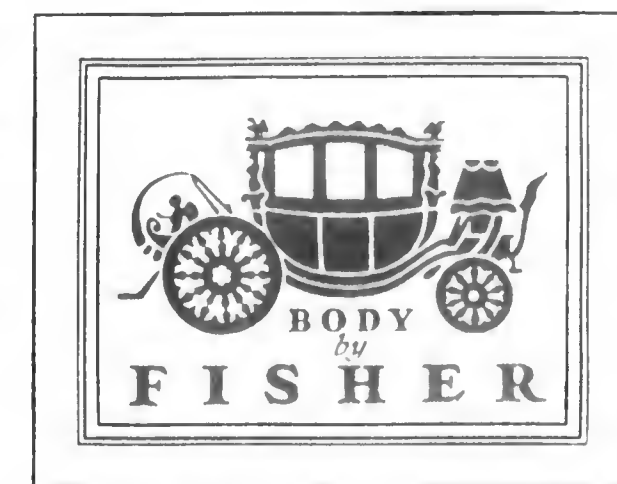
ALL Fisher Bodies are of wood-and-steel construction—the finest type of body construction known to the body building art. Enormous resources and unequalled facilities enable Fisher and General Motors to build bodies of superior wood-and-steel construction for motor cars in all price fields.

The framework of a Fisher Body is of selected hardwood, scientifically reinforced with powerful steel braces and covered with strong steel panels. Fisher Bodies stand up unusually well because of their structural strength and thus increase owner satisfaction and

motoring comfort. Fisher offers in addition to this greater durability many features of convenience. One of these is the adjustable front seat that may be adjusted quickly and easily to suit the convenience of the individual driver. Another, is the Fisher non-glare vision and ventilating windshield which reduces the

annoying reflections of windshield glare, permits unobstructed vision through a single pane of plate glass, and allows at the same time a thorough and scientific ventilation of the car. It may be adjusted as desired with one hand, even while the car is in motion.

When you buy a General Motors car, you make sure of this greater durability and convenience. Naturally, too, Fisher Bodies give added value and more pronounced leadership to General Motors cars, which are the *only* cars offering to the motor car buyer the important advantages of Body by Fisher.



GENERAL MOTORS



When Twilight Comes

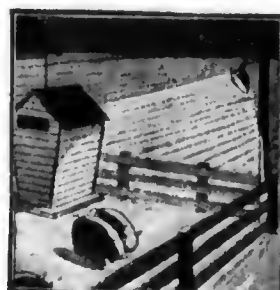
When twilight comes, thousands of farm homes and buildings are lighted—lighted at the touch of a button—lighted by electricity, which is cleaner, cheaper, safer, and infinitely more convenient than the old methods. ¶ To be certain of the most economical and trouble-free electric service, install the G-E Wiring System and use G-E MAZDA lamps on your farm. ¶ Electricity is

bringing new profit to farms. The application of G-E motors does swiftly and cheaply hundreds of the old, slow, and tiring farm jobs. And in the farm home, electricity cooks, cleans, washes, irons, and refrigerates. ¶ If you are located on or near an electric power line, ask the power company for complete information concerning the possible uses of electricity on your farm.

Tune in on the General Electric Special Weekly Farm Program on WGY (Schenectady). In addition, join us in the "General Electric Hour" broadcast every Saturday at 9 P. M. Eastern Standard Time, on a nation-wide N. B. C. network.



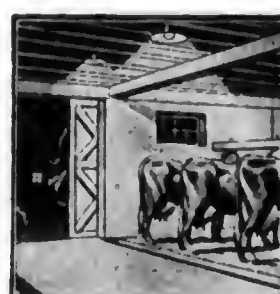
Good lighting in the kitchen saves time and eyesight



Yard lighting makes your going easy and discourages marauders



A path of friendly light between house and barn



Farm tasks are more quickly and easily done under good light

GENERAL ELECTRIC

95-632



The New CHEVROLET SIX

—more for your money than ever before

Those who seek the utmost in motoring satisfaction, at a price so low as to be within the reach of all, are invited to see and drive the new Chevrolet Six.

For, again, Chevrolet has used the savings made possible by its great volume production to build a smoother, faster, better Six—a Six that is, by every standard of comparison, the Greatest Chevrolet in Chevrolet History!

Not only does this new car retain all those basic qualities which have won for Chevrolet such great success in the past—but, in addition, it offers scores of specific improvements which vitally affect performance, comfort, safety and endurance.

Lighter, stronger pistons, with bronze bushings; fully-enclosed, internal-expanding brakes; Delco-Lovejoy hydraulic shock ab-

sorbers, both front and rear; sturdier transmission; heavier rear axle—these are typical of the engineering advancements found throughout the entire design of the car.

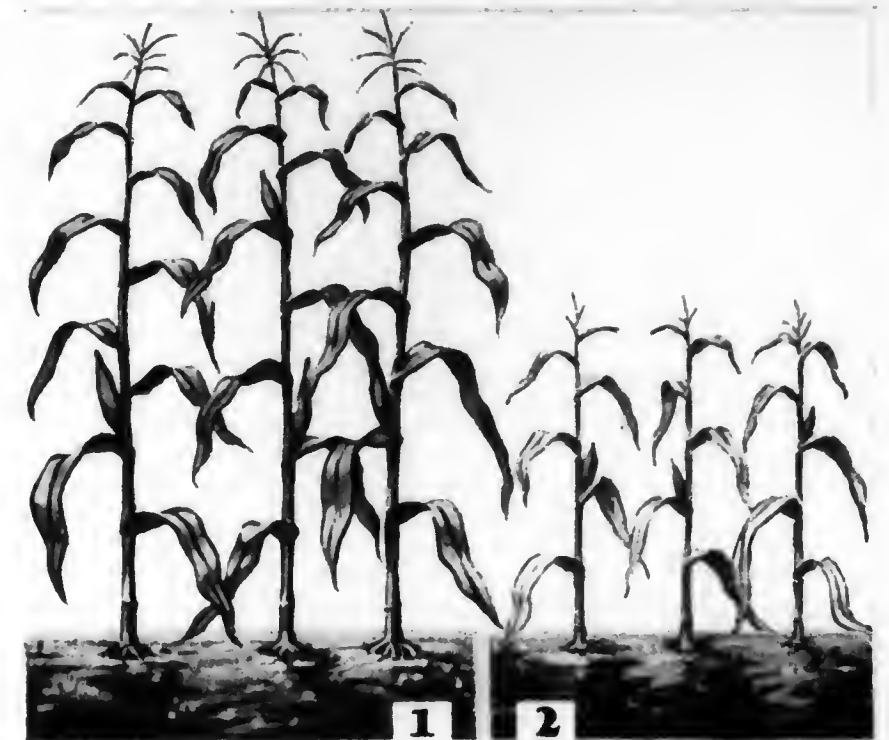
The new Fisher bodies have likewise been made better in every way. A new non-glare windshield, in all closed models, makes night driving safer and more pleasant. Upholsteries are richer and more durable. Seats are deeper and wider. A new instrument panel carries every device for perfect control of the car—including a new gasoline gauge. And construction throughout is stronger and sturdier.

But no listing of features can give you any idea of the extra quality and value provided in the new Chevrolet. You must see and drive this finer Six to learn how much more it gives for your money. Visit your Chevrolet dealer today!

Chevrolet Motor Company, Detroit, Michigan
Division of General Motors Corporation

SIX IN THE PRICE RANGE OF THE FOUR

THE EXTRA PROCESS THAT BROKE ALL RECORDS



Fertility treatment tests made on corn by U. S. Department of Agriculture Experiment Station, showed that in plot No. 1 where a specified fertilizer was applied, the time from planting to silking was reduced by 25½ days from that of plot No. 2, which received no soil treatment. The yield was increased from an average of 11.6 bushels to 68.8 bushels per acre. If interested in further details, write for U. S. Government information and the booklet, "The Secret of a Long Life," which will be mailed to you without charge. Address: FIRESTONE TIRE & RUBBER COMPANY, Akron, O., or, Los Angeles, Calif. — or, Hamilton, Ont.



TIRE - TUBES - BATTERIES - BRAKE LINING

THE extra process applied to soil means the addition of certain elements that produce prize-winning crops.

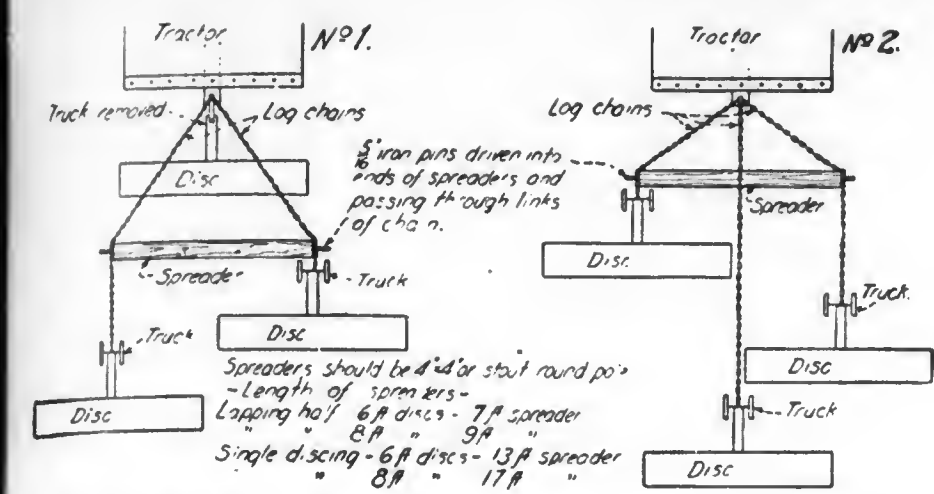
The extra process applied to tires means the addition of Gum-Dipping, which doubles the flexing life of the tire, increases mileage and provides a greater degree of safety.

The size of crops which you take out of your soil will be in relation to the extra quality of the seed, the fertilization and cultivation you put into it.

In order to take more mileage out of tires, something extra must be put in. Gum-Dipping... the extra process used only in the manufacture of Firestone Gum-Dipped Tires... saturates and insulates every fiber of every thread within the individual cord with live rubber. This process minimizes friction and heat, the greatest enemy to tire life.

Insist upon Firestone Gum-Dipped Tires, built with the extra process, and assure yourself a bumper crop of extra miles of tire service at no additional cost. The Firestone dealer in your community will save you money and serve you better!

Listen to
"The Voice of Firestone"
Every Monday night
broadcast through city
stations NBC Network.



A long beam put across rear of tractor with one disc at each end and the third in the middle does not work well, as front wheels of tractor slide side-wise in turning.
-Hitches For Three Discs Behind Tractor- D635.

To Get the Most Out of Tractors

FUEL and oil are the most noticeable items of tractor cost, but in themselves are really of minor importance. Modern tractors are fairly economical in the use of fuel and oil. Nothing can be saved by stinting the quantity or lowering the quality of the cylinder oil.

Sometimes the fuel and oil used, as well as the cost of man labor, are too high per unit of work done because the tractor load is too light. Thus a two-row corn planter is a light two-horse load, and pulling this with a tractor intended to do as much as ten horses is not very efficient of fuel and especially of oil and man labor. On the other hand it doesn't pay to load a tractor to the point that serious wheel slippage occurs or the speed of travel is below that at which good work can be done.

To Reduce Upkeep and Lost Time

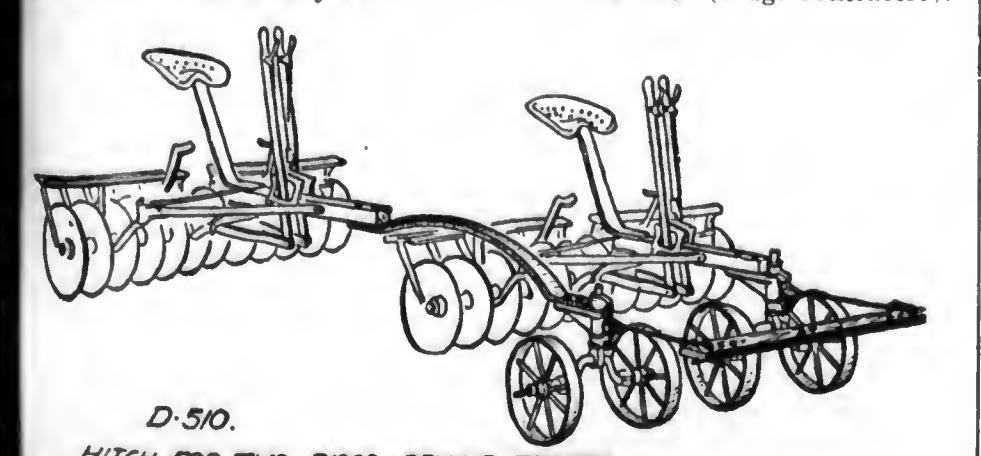
A careful and efficient operator helps in making a tractor profitable by avoiding accidents and breakage, by greasing and changing oil at regular intervals, by tightening bearings and making other adjustments before damage results, and by doing such adjustments and overhauling at such times as will not conflict with its use when needed. He can also help much by adapting the tractor to more and more of the farm operations.

More Days Use per Year

Undoubtedly the best chance of cutting tractor costs and increasing the power farming income is by getting more hours work per year, thus cutting down such overhead costs as interest, shelter, taxes, and a very considerable part of the depreciation.

This added profit of more hours use per year depends very largely on the owner's ability as an agricultural engineer and farm manager, since it means the careful selection of the tractor to fit the farm's needs, the proper correlation of the farm operations with tractor power, the engineering ability to devise hitches and other means for making the best use of the equipment at hand, and the ability to cooperate with his neighbors in the exchange of equipment and labor.

If a small farmer finds himself with a large size separator, he would be foolish to buy a large tractor to operate it say two or three days per year; since he could hardly afford to buy the large plows and other equipment to go with such a tractor and he would have to spread his heavy interest and other overhead charges over two or three days' use, making these costs perhaps \$50 to \$75 per day.



D-510.
HITCH FOR TWO DISCS BEHIND TRACTOR.

ARMOUR'S BIG CROP FERTILIZERS

make your soil take off its coat and go to work

AN INVESTMENT in fertilizer is the most profitable money that a farmer can spend. A survey including 47,628 farmers in 35 states showed a net return of \$3.54 for every dollar invested in fertilizer. A return of \$5 and more was not unusual.

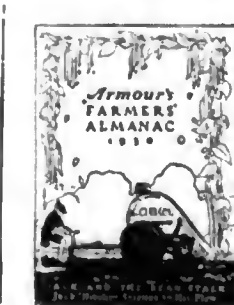
Properly made, correct-ratio fertilizers, liberally applied, increase yields and decrease growing costs. They improve quality and increase the feeding and sales value of the crop. But it is important that generous applications be made. Better to amply feed a small field than to half feed a larger.

Armour's BIG CROP High-Analysis Fertilizers are manufactured under the most careful scientific control. They are so made as to give a quick, vigorous, ample, early growth of stalk or vine while moisture conditions are good, and then carry the crop through a well-fed growth to an early maturity.

Make sure that your investment in fertilizer will bring the greatest possible returns. Armour dealers are prepared to help you in the selection of the most suitable BIG CROP Fertilizer analysis for your particular soils. You can command their services freely. If you do not know the name of your Armour dealer, write to us.

Charles H. MacDowell
President

Armour Fertilizer Works Chicago, U. S. A.



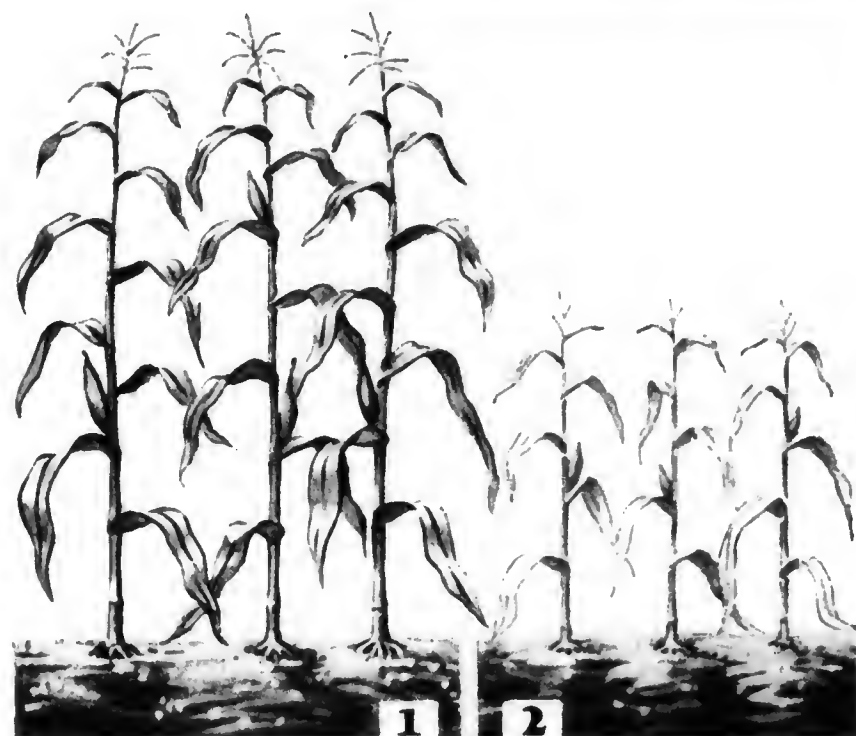
MAIL THIS COUPON TODAY

Charles H. MacDowell, President
ARMOUR FERTILIZER WORKS
Dept. 110, 111 West Jackson Blvd., Chicago, Ill.

Please send me, free, a copy of ARMOUR'S FARMERS' ALMANAC for 1930.

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P.O. _____ R. F. D. Route _____
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THE EXTRA PROCESS THAT BROKE ALL RECORDS



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Tires • Tubes • Batteries • Brake Linings

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The extra process applied to tires means the addition of Gum-Dipping, which doubles the flexing life of the tire, increases mileage and provides a greater degree of safety.

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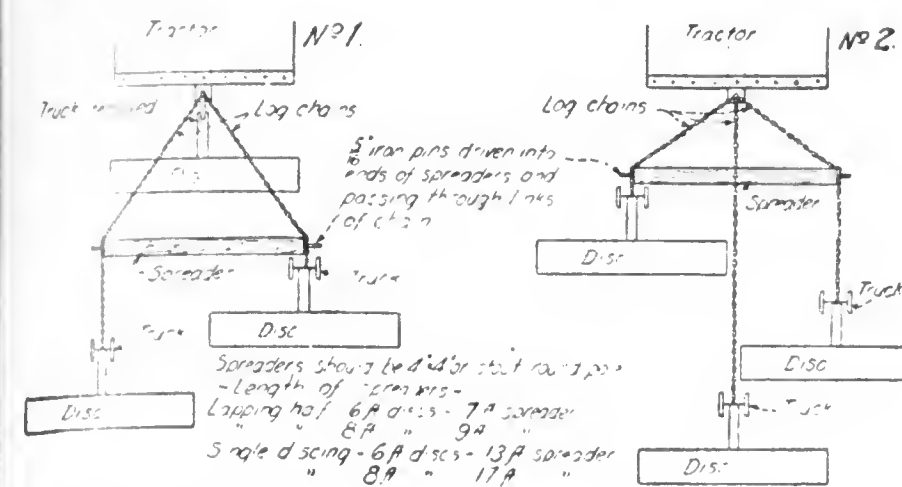
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Listen to
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broadcast through fifty
stations NBC Network.

March 15, 1930

PENNSYLVANIA FARMER

(409) 25



A long beam put across rear of tractor with one disc at each end and the front of the beam does not work well, as front wheel of tractor side side-wise in turning.

Hitches For Three Discs Behind Tractor— D-635.

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Undoubtedly the best chance of cutting tractor costs and increasing the power buying income is by getting more use out of work per year, thus cutting down such overhead costs as interest, taxes, and a very considerable part of the depreciation.

This profit of more hours use per year depends very largely on the owner's ability as an agricultural engineer and farm manager, since it means the careful selection of the tractor to fit the farm's needs, the proper relation of the farm operations with tractor power, the engineering ability to devise hitches and other means for making the best use of the equipment at hand, and the ability to cooperate with his neighbors in the exchange of equipment and labor.

If a small farmer finds himself with a large size separator, he would be foolish to buy a large tractor to operate it only two or three days per year, since he could hardly afford to

buy the large plows and other equipment to go with such a tractor and he would have to spread his heavy interest and other overhead charges over two or three days' use, making these costs perhaps \$50 to \$75 per day.

I know of one farmer who uses his medium-sized tractor for all his farm work that he can, and at slack times hooks his tractor up to a pulverizer and grinds limestone for himself and neighbors. He also exchanges tractor work for man and team labor in getting rock to the pulverizer.

Where a farmer is buying new machines for use with a tractor, those implements intended for tractor use will usually be found most convenient and satisfactory; but where good ordinary implements are on hand and cannot be disposed of to advantage they will often give very satisfactory service by proper hitch arrangements such as those shown.

At the top of this page is a sketch illustrating two ways of hitching three discs behind one tractor. Such an arrangement may be a means of saving time in disking and making full use of the tractor's power. Two discs may be readily hitched to a tractor by following the suggestion illustrated in the sketch at the bottom of the page. I. W. D.

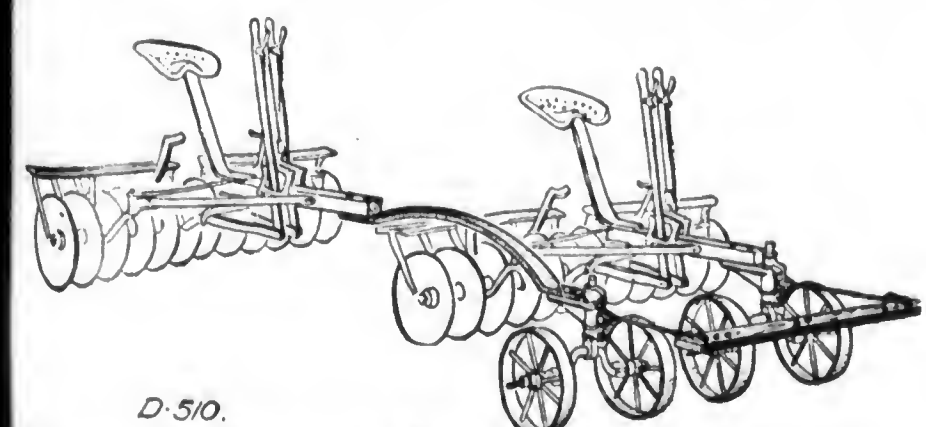
An Outside Chimney

IN reply to a request of J. W. Smith wanting information on the construction of an outside chimney, R. U. B. told Mr. Smith that outside chimneys were not satisfactory. I beg to say that they are if built right. You only have to tear out enough opening to make room for the arch and mantel then the balance of the chimney will be on the outside of the house.

As to chimney getting hot, it will not if properly constructed. The heat is all used in the fireplace, or the stove, as the case may be. Flue liners are not necessary if you lay your mortar joints well and plaster inside of flue.

Dig down below freezing point for foundation. You will not need to bolt the chimney to the house if you build it plumb. The single width of brick is all that is needed in flues. Also in the front and back of chimneys, but the sides must be thicker so one will have room to shoulder the chimney.

J. H. Gardner (Bldg. Contractor)



D-510.
HITCH FOR TWO DISCS BEHIND TRACTOR.

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Charles H. MacDowell
President

Armour Fertilizer Works Chicago, U. S. A.



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The Story of Woodbine Farm

By W. D. ZINN

I DECLINED to consider their proposition. In a few months a committee came again, but received from me the same answer. In a short time they returned the third time and said, "Now, we know you would come and work for us if we would give you enough money." I told them I was human, and money would be an inducement, but what I would consider enough they would think out of all reason. "Name your price," the committee said.

After revolving it in my mind I said, "I will come for . . . dollars a year, if I may be permitted to come home every Saturday night, and return on Monday morning, provided you will pay all my expenses while I am away."

Of course I did not think they would accept such a proposition. The committee said, "We are not authorized to offer you quite so much, but we will call a meeting in the morning, and let you know then whether we will accept your proposition."

That night was a poor night for sleeping. I was provoked at myself because I had sold myself for the lousy lurch. Next morning my wife said, "What was the matter? You did not sleep much." Then I told her of my trouble. I do not believe that that man lives who loves his home more than I do.

An Opportunity for Service

For the last forty-five years my good wife has been encouraging me to look on the bright side and in keeping with her custom she said, "You should not feel that way about it. Harrison is one of the best counties of the state, and you will become acquainted with a lot of good people and your opportunity for doing good will be greater there than it would be here on the farm. You ought to be thankful that your services are wanted by such a class of people."

I met the committee on Saturday morning in its office in Clarksburg, still feeling that I had made a mistake. When I arose to speak before the committee I said, "I think this committee is making a mistake in hiring me at the salary you are to pay. With this salary you can hire two much younger men, either one of whom might do more and better work than I. Besides I want it understood now that I will only continue in the work one year, and it will be unfortunate to hire one who will stay on the job only one year. I will only get acquainted with the farmers in that time."

Mr. Arnold said, "You are wanting to back out, but you can't do it that way." The agreement was closed. On the following Monday morning I mounted one of the best saddle horses I ever owned and rode to Elk District of Harrison county.

Results of Survey

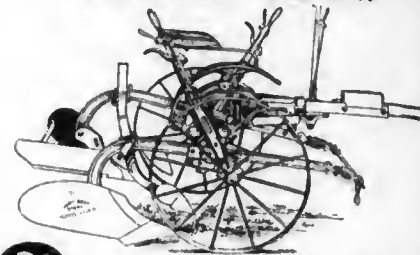
A survey had been made of the county which disclosed the fact that \$2,000,000 had gone out of the county the year before for hay and grain, and a great deal of this had been spent by farmers. The question of stopping this needless expenditure of money by farmers seemed to me to be the paramount question for the farmers to consider, for how could they build better roads and school houses and equip their homes with modern conveniences when they were spending so much money for feed?

Mr. Jackson Arnold, whom I visited the first week of my work in the county, said, "Mr. Zinn, I have paid out from \$500 to \$1,000 every year for the past twenty-five years for hay. If you can solve the wintering problem for me you will have done me the greatest possible amount of good."

On investigation I found that Mr.

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Arnold had more than seven hundred acres of as good land as could be found in the state. Fully one hundred acres of this was tillable land. There were meadows here that he said had not been plowed for fifty or sixty years, and they were producing nothing but poverty grass.

His problem did not scare me, for I had solved the same kind of a problem on Woodbine Farm several years before. He had one of the best barns in the county, but it was poorly arranged for cattle. In fact it was built to accommodate horses, and he had been keeping less than a dozen cattle in it. The basement was enlarged, and he floor above was arranged for keeping cattle, the box stalls built for horses being taken out. It was soon so modified as to accommodate seventy-five large cattle.

A rotation of corn, rye or wheat for hay, clover and timothy was adopted. A silo 12x53 feet was built, and not a dollar was paid out for hay afterward. All over the county farmers were induced to put their permanent meadows into a short rotation. Within three years two hundred and eighty-eight silos were built. Lime was used to sweeten the sour soils.

Meetings at Court House

In order to get acquainted with the farmers of the county, I suggested to my Executive Committee the propriety of holding Saturday afternoon meetings at the Court House in Clarksburg. This town is very centrally located and it was a custom among the farmers of the county to take Saturday off for marketing and for the transaction of business.

This practice brought a great many farmers in town on Saturday. When the meetings were started it was not our intention to carry them on very long, but they grew in interest, and were more largely attended, and greater interest manifested in them during my fourth year as county agent than at any previous time. Farmers formed the habit of coming in every Saturday afternoon whether they had any questions to ask or not.

The meetings usually opened at one p. m. and it was after four o'clock when the farmers left the court room. The meetings were like moving picture shows. When the reel had been run, we simply started back and ran it over again. I mean by this we would discuss one question, and the querist would retire. A new farmer would come in and perhaps ask the same question.

I often stood on the floor three hours talking and answering questions all the time. It was hard work but I never did anything that was quite so pleasurable. I shall always regard the four years and three months I spent in Harrison county, W. Va., in the capacity of county agricultural agent as being the hardest work I ever did in my life, but they were also the most pleasant years of my life.

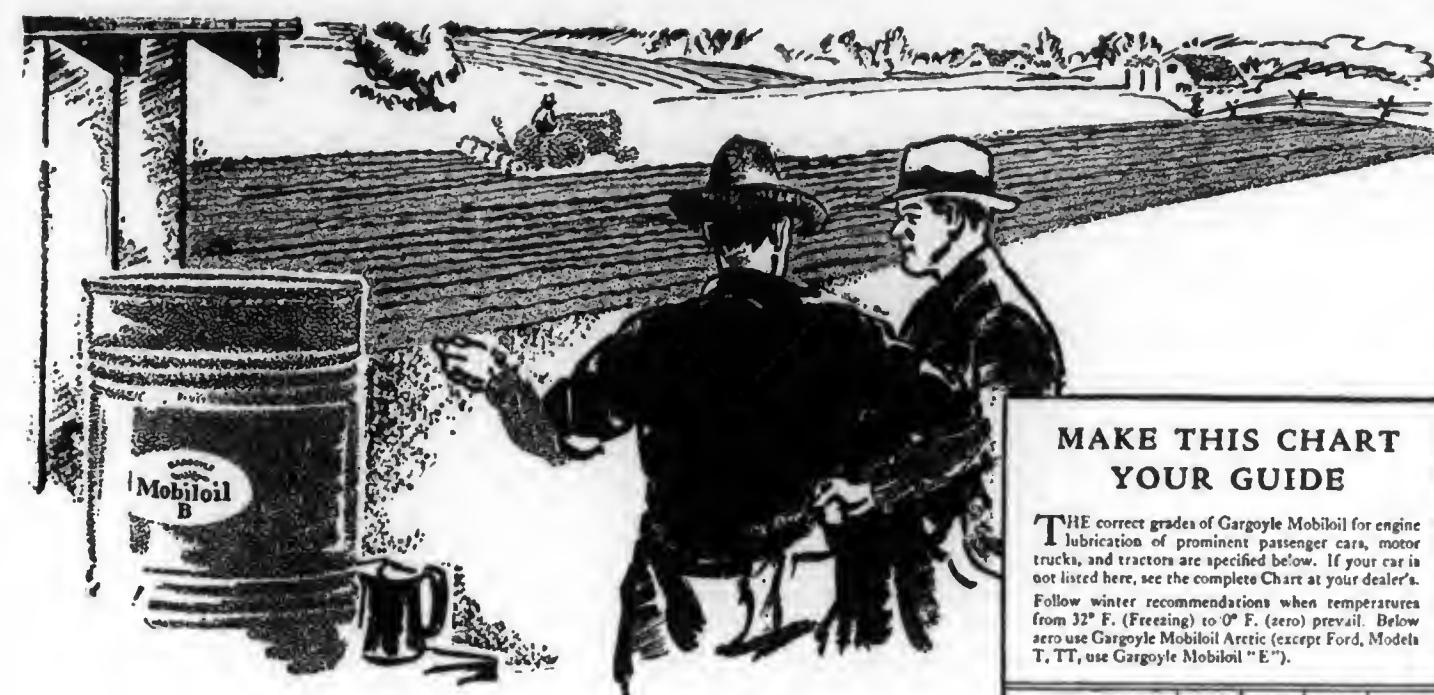
(To be continued.)

Rotten Manure

MR. S. Baker of Pennsylvania has something to say about rotten manure on page 335 of a recent issue. I hold a little different view of the matter from those he expresses. I can see why the gardener and the truck grower want well-rotted manure, but for the man engaged in general farming I see no reason why he should let the manure rot.

I have always tried to have all this coarse stuff rot in the ground. In the first place there will be less loss. When manure is rotting in the pile as Mr. Baker suggests more or less of the ammonia is lost by the heating. The decaying of vegetable matter in the soil will increase bacterial life there and we cannot have too many helpful bacteria in the soil. Again, the decay of this matter in the soil will help to render more plant food available and that is another thing we want to accomplish.

W. D. Z.



MAKE THIS CHART YOUR GUIDE

THE correct grades of Gargyle Mobiloil for engine lubrication of prominent passenger cars, motor trucks, and tractors are specified below. If your car is not listed here, see the complete Chart at your dealer's. Follow winter recommendations when temperatures from 32° F. (freezing) to 0° F. (zero) prevail. Below zero use Gargyle Mobiloil Arctic (except Ford, Models T, TT, use Gargyle Mobiloil "E").

| NAMES OF PASSENGER CARS, MOTOR TRUCKS AND TRACTORS | 1929 | | 1928 | | 1927 | | 1926 | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|
| | Engine | Winter | Engine | Winter | Engine | Winter | Engine | Winter |
| Autocar, 7 (own & Waukesha) | A | Arc | A | Arc | A | Arc | A | Arc |
| "H (own engine)" | A | Arc | A | Arc | A | Arc | A | Arc |
| Bulk | A | Arc | A | Arc | A | Arc | A | Arc |
| Cadillac | A | Arc | A | Arc | A | Arc | A | Arc |
| Chandler Special | A | Arc | A | Arc | A | Arc | A | Arc |
| Chevrolet | A | Arc | A | Arc | A | Arc | A | Arc |
| Chrysler | A | Arc | A | Arc | A | Arc | A | Arc |
| Diamond T | A | Arc | A | Arc | A | Arc | A | Arc |
| Dodge Brothers | A | Arc | A | Arc | A | Arc | A | Arc |
| Durant | A | Arc | A | Arc | A | Arc | A | Arc |
| Ezee | A | Arc | A | Arc | A | Arc | A | Arc |
| Federal | A | Arc | A | Arc | A | Arc | A | Arc |
| Ford, 180 | A | Arc | A | Arc | A | Arc | A | Arc |
| T-60, F-60, A-60, B-60, 2-60, T-60, W-60 | A | Arc | A | Arc | A | Arc | A | Arc |
| JC-6, F-2 | A | Arc | A | Arc | A | Arc | A | Arc |
| Ford, A & AA | A | Arc | A | Arc | A | Arc | A | Arc |
| T & T | A | Arc | A | Arc | A | Arc | A | Arc |
| Franklin | A | Arc | A | Arc | A | Arc | A | Arc |
| G. M. C. T-10 | A | Arc | A | Arc | A | Arc | A | Arc |
| T-11, T-12 | A | Arc | A | Arc | A | Arc | A | Arc |
| T-13, T-14, T-15 | A | Arc | A | Arc | A | Arc | A | Arc |
| T-16, T-17, T-18 | A | Arc | A | Arc | A | Arc | A | Arc |
| Garford | A | Arc | A | Arc | A | Arc | A | Arc |
| Graham Brothers | A | Arc | A | Arc | A | Arc | A | Arc |
| Hudson | A | Arc | A | Arc | A | Arc | A | Arc |
| Hupmobile | A | Arc | A | Arc | A | Arc | A | Arc |
| Indian, 611, 6111 | A | Arc | A | Arc | A | Arc | A | Arc |
| International Special Delivery, Waukesha engine | A | Arc | A | Arc | A | Arc | A | Arc |
| 31, 41, 54C | A | Arc | A | Arc | A | Arc | A | Arc |
| 54D, 61, 74C | A | Arc | A | Arc | A | Arc | A | Arc |
| 74D, 101 | A | Arc | A | Arc | A | Arc | A | Arc |
| HST, HST-6C | A | Arc | A | Arc | A | Arc | A | Arc |
| HST, HST-6C | A | Arc | A | Arc | A | Arc | A | Arc |
| 104C, H5104C | A | Arc | A | Arc | A | Arc | A | Arc |
| other models | A | Arc | A | Arc | A | Arc | A | Arc |
| Mack | A | Arc | A | Arc | A | Arc | A | Arc |
| Nash, 4-cylinder | A | Arc | A | Arc | A | Arc | A | Arc |
| Special Six | A | Arc | A | Arc | A | Arc | A | Arc |
| other models | A | Arc | A | Arc | A | Arc | A | Arc |
| Oakland | A | Arc | A | Arc | A | Arc | A | Arc |
| Overland | A | Arc | A | Arc | A | Arc | A | Arc |
| Packard | A | Arc | A | Arc | A | Arc | A | Arc |
| Pfizer, 8-cyl. | A | Arc | A | Arc | A | Arc | A | Arc |
| other models | A | Arc | A | Arc | A | Arc | A | Arc |
| Pontiac | A | Arc | A | Arc | A | Arc | A | Arc |
| Reo | A | Arc | A | Arc | A | Arc | A | Arc |
| Republic, 15, 15W | A | Arc | A | Arc | A | Arc | A | Arc |
| 25, 25W, 35W, 35B | A | Arc | A | Arc | A | Arc | A | Arc |
| 35W, 35B, 35B | A | Arc | A | Arc | A | Arc | A | Arc |
| 25-6 | A | Arc | A | Arc | A | Arc | A | Arc |
| Service | A | Arc | A | Arc | A | Arc | A | Arc |
| Star | A | Arc | A | Arc | A | Arc | A | Arc |
| Stewart, 7X, 10X | A | Arc | A | Arc | A | Arc | A | Arc |
| 21, 21X, Buddy | A | Arc | A | Arc | A | Arc | A | Arc |
| other models | A | Arc | A | Arc | A | Arc | A | Arc |
| Studebaker (Pass.) | A | Arc | A | Arc | A | Arc | A | Arc |
| White, 15, 15B, 20 | A | Arc | A | Arc | A | Arc | A | Arc |
| 20A | A | Arc | A | Arc | A | Arc | A | Arc |
| 59-60 | A | Arc | A | Arc | A | Arc | A | Arc |
| other models | A | Arc | A | Arc | A | Arc | A | Arc |
| Willys-Knight, 4-cyl. | A | Arc | A | Arc | A | Arc | A | Arc |
| other models | A | Arc | A | Arc | A | Arc | A | Arc |
| TRACTORS | | | | | | | | |
| Allis-Chalmers, 15-25 | A | Arc | A | Arc | A | Arc | A | Arc |
| other models | A | Arc | A | Arc | A | Arc | A | Arc |
| Case, 25-45, L | A | Arc | A | Arc | A | Arc | A | Arc |
| other models | A | Arc | A | Arc | A | Arc | A | Arc |
| Caterpillar | A | Arc | A | Arc | A | Arc | A | Arc |
| Citrac | A | Arc | A | Arc | A | Arc | A | Arc |
| Deere | A | Arc | A | Arc | A | Arc | A | Arc |
| Fordson | A | Arc | A | Arc | A | Arc | A | Arc |
| Har-Parr | A | Arc | A | Arc | A | Arc | A | Arc |
| John Deere | A | Arc | A | Arc | A | Arc | A | Arc |
| McCormick | A | Arc | A | Arc | A | Arc | A | Arc |
| Oil Pull | A | Arc | A | Arc | A | Arc | A | Arc |
| Twin City, 40-45 | A | Arc | A | Arc | A | Arc | A | Arc |
| other models | A | Arc | A | Arc | A | Arc | A | Arc |
| Walls | A | Arc | A | Arc | A | Arc | A | Arc |

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Readers' Views

Mulch Paper

THE writer experimented with mulch paper last year in starting seedling plants and found that early in the season he gained about ten days time with tomatoes, cabbage and so forth mulched with paper over those without any mulch. Another interesting factor brought out in these trials was that the plants generally rooted closer to the surface of the ground, so that in digging for transplanting you have a better root system. Another advantage of paper mulching is that it holds the soil moisture close to the surface and so increases the germination of the seeds during a dry time and with a lot less care.

In summer work with mulch, pansy, cabbage and other seeds of such character when sown in plant beds during a period of excessive drouth gave a good stand with one good watering when sown, while those not mulched needed about five waterings to get them up. Again with cuttings in a limited trial, we thought there was increased percentage of rooting over those not mulched on account of the increased temperature of soil under the paper acting as a mild bottom heat. For such purposes there is a practical field for the use of this material and we think it well worth the time of anybody interested in making trials.

Staples Hold in Place

While we had success in the garden in promoting the growth of peppers, eggplants and tomatoes as well as cabbage and lettuce early in the season, the expense was greater than that of cultivation.

One of the difficulties in using mulch paper is to hold it in place and to keep the wind from blowing it all over. The most satisfactory method we found was by the use of wire staples made of about No. 10 wire with at least eight or nine inches of each side in the soil. If we did not make the legs as long as this, a strong wind would pull a number of the staples up, especially early in the spring when the heavy winds in New Jersey.

In summarizing, we feel that the paper will have a place for certain special purposes in agriculture and gardening, but is rather expensive for general use.

C. A. McLean,
Mercer Co., N. J. County Agent.

"He Who Plants a Tree"

WE live at the foot of the Blue Ridge Mountain on the south side and here we had lots of timber until quite recently. For a few years a man has been buying one tract after another for mine props. It is remarkable how fast our timber goes to the mines. I never imagined that so much timber would go into the mines.

This man has two tractor trucks and hauls 15 tons on a load and two loads a day. When he is done with a tract of timber there is not a sign of a growing tree, as he slashes everything down. I would not be surprised if the state would pass a law forbidding this "murdering" of the little trees which have no present value but a promising future. It hurts me to see it being done that way.

Of late years I have been planting my poor land to trees which the state furnished as seedlings. My first venture in this line was about 15 years ago when I bought 400 seedlings of catalpas from a man in Illinois who advertised his goods so much that people bought before they knew their value. That tree may be all right for Illinois, but it is too slow in Pennsylvania. I planted the catalpas in rows four feet apart each way and cultivated like corn. I gave them the best of care and about every one grew. Had I planted something like black

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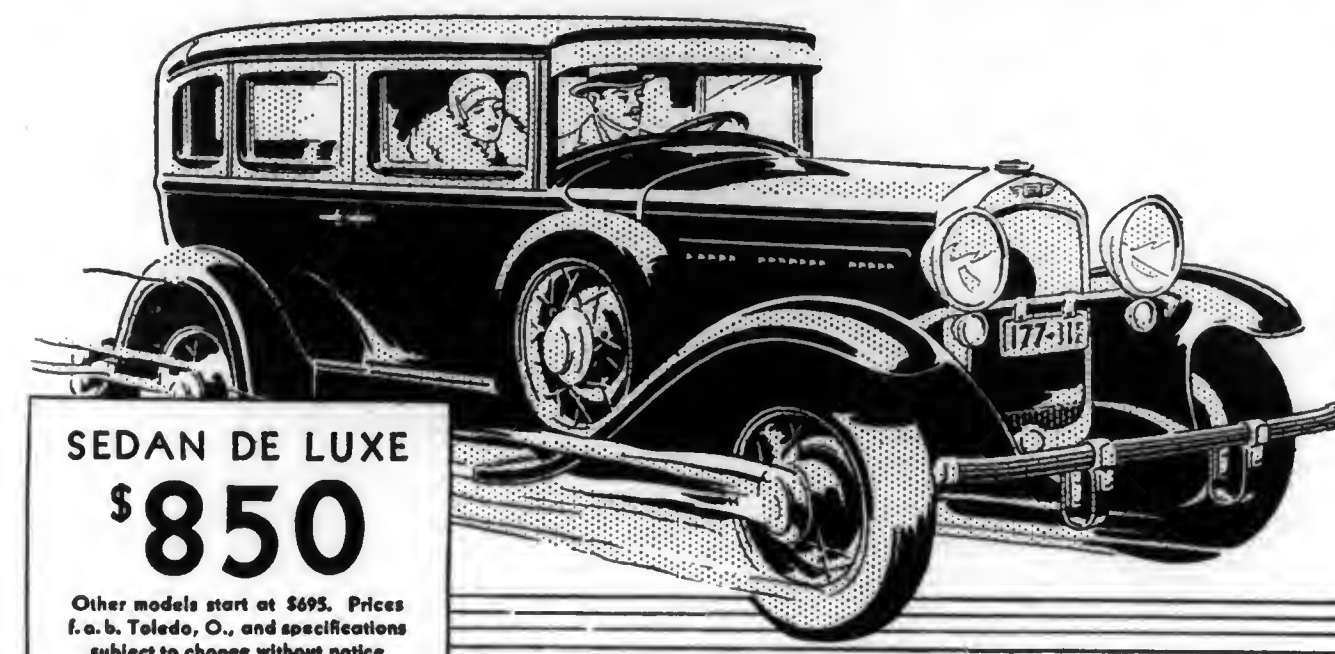
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or yellow poplar I would have about three times as much of a tree as I have now.

Eight years ago I planted white pine and Scotch pine and today they are eight to twelve feet high. I am not so much in favor of planting white pine any more because the blight attacks it. Scotch pine is hardy in every respect and is a fast grower.

This year I have ordered red pine, Austrian pine, Norway spruce and black locust. The locusts will take the place of the doomed chestnut for fence posts.

Two years ago I planted willows in marshy meadow which was always hard to mow because it was too wet. Ever since I knew anything about meadow it has been mowed for hay. For a long time I realized that I did not pay to make hay there, but I let it go without mowing it would grow up to weeds which would be an annoyance, and then the idea struck me of starting willows.

To plant willows is very easy. With pointed iron make a hole and put a willow stick. It will grow. I have also raised black walnut trees from seed, but they are somewhat slow growers.

Would it not be a grand idea to plant a field to sugar maples for the coming generation to make maple syrup? We have to provide for the next generation if they are to have trees. Forests are valuable in very many ways. First for their products of wood and lumber, for flood control, for game preserves, for windbreaks. What is nicer than nice growing forest trees? C. R. Bashore, Berks county, Pa.

Deserted Churches

MUCH is being said and written about deserted churches, especially deserted country churches, and when we see them standing stark and bare of suitable surroundings we think, "No wonder that they are deserted."

Beautiful surroundings—never before in our land has beauty received so much emphasis. Landscape gardeners, interior decorators, pages of advice about decorating the home, they not plans for beautifying the country church? God made the flower house? That is a tithe that we are prone to forget. When the perennials are divided in the home garden, they not carry a few to the churchyard?

Nothing succeeds like success. The church may be in a thrifty condition. Why not say it with flowers? If flowers may attract the folks who are able to help make it thrifty.

Create Interest

It is not necessary to hire a landscape gardener. In every community there is some one with "garden sense." An unbroken bit of lawn, shrubbery close to the foundation walls, roses, phlox bordering these, and so that there will be a bit of green against the green throughout the frost-free season, will make the grounds into a delightful spot. The most beautiful church I ever saw is a stone church in the country. The approach to it small stone trees flaunt swaying pennants of green in summer, russet and gold and crimson in autumn.

Often our church is decorated with ferns or with flowers when a general is to be held there. I am getting to associate certain flowers with church. This should never happen. Flowers are glad to be in the arms of little children, carry them to shut-ins and the very enjoy them on gala occasions when they while living in this good world.

To return activity around the church creates interest. To be successful it must be a "going concern." Curiosity helps. We have Egg Week, Old Home Week, etc. Why not a Beautiful Your Church Week? Let's go! M. C. S.

THE YOUNG PEOPLE

Kite Time

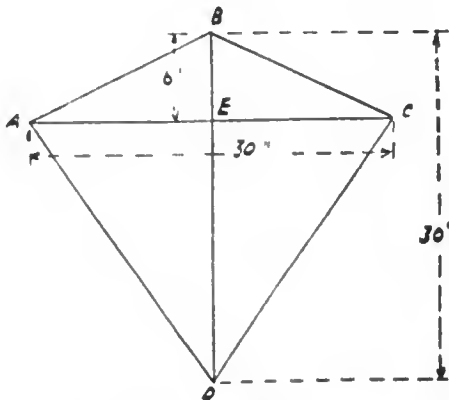
CORRECT proportions and balance combined with lightness and strength are the requirements of a kite that will fly. Any boy with a sharp knife, a plane, some sandpaper and plenty of patience can build such a kite.

To begin select two pieces of straight-grained light wood, such as white pine or spruce. Cut them 30 inches long—both the same length. Plane them down to a quarter of an inch in thickness, making them square with the edges rounded slightly. Care should be taken to have these sticks straight and uniform in thickness their entire length when finished.

To Make Kite Balance

A small notch is now cut in each end of both sticks, about a quarter of an inch from the end. This is to tie the strings to which hold the paper. Next find the exact center of one stick, by measuring from both ends, and mark this center with a sharp pencil. Place the stick on a knife blade at this pencil mark and see if it balances. If one half is a little heavier than the other sandpaper that half down until both halves are of the same weight and the stick balances.

Six inches from one end of the other stick make a similar mark with the sharp pencil. Now turn the sticks half over and mortise a place so that the pencil mark comes at the exact center of the cut. Make the mortise just big enough so that the two sticks will fit together tight and at right



Any Boy Can Make a Kite

that it can be cut about an inch larger than the outline of the kite all the way around. With bow or front side of kite on the paper, fold paper neatly to fit string and paste the folds down all the way around, thus holding the paper to the kite. The paper should not be stretched too tight. It will do no harm to put a little paste on the sticks where they come in contact with the paper to hold the latter to them.

A string is now fastened at "E" and "D." It should be the length of the line "E" "C" "D," and the kite string is attached to it at a point corresponding to "C." Now hold the kite up by this string and note if it balances. If not, it can be made to balance by pasting strips of paper at "A" or "C."

This kite needs no tail and flies best in a light steady breeze. If the wind is too strong and it shows a tendency to dive it can be steadied by a tail. If made right it will require two balls of kite string, or more, for it is a high flier.

Dimensions for Box Kite

This box kite is made in the proportions of one, two and three. That is, it is one foot deep, two feet wide and three feet long, or any size in like proportion. The points "O" and "M" are half way between "D" "G" and "C" "F," respectively, while "Y" is half way between "D" and "C," and "X" is half way between "C" and "M."

The sides and back are covered with paper, which is pasted to the sticks which form the frame. The space "C" "D" "Y" "X" is likewise covered, as is "M" "O" "G" "F," but the space "X" "Y" "O" "M" is left open. Both ends of the box are also left open.

The string is fastened to the loop "S" which is tied to the kite at "Y" and "X." The kite is braced at each end by strong cord tied "AD" and "CB."

Four-H Doings in England

THE international dairy-judging contest which is held each year in England will take place this year at the Royal Show, Manchester, England, July 8 to 12. It will be remembered that the team from Oklahoma, representing the United States, competing against a team from the Young Farmers' Clubs of England, brought home the honors.

An Oklahoma team will represent this country again this year, having won the right to do so by successfully winning a competition among teams from twenty-seven states at the National Dairy Show last fall. It is considered likely that a team from Canada will also compete in the contest this year.

Figure them Out

THE following are your close relatives. Who are they? This is a complicated puzzle, we admit. A gold pencil will be sent to the first one sending the correct answers before March 22. Send your letter to Puzzle

Editor, Pennsylvania Farmer, 7301 Penn Ave., Pittsburgh, Pa.

1. Your father's uncle's brother's sister?
2. Your aunt's mother's father's wife?
3. Your mother's nephew's daughter's son?
4. Your brother's son's sister's mother?
5. Your sister-in-law's father-in-law's grandson?
6. Your sister's father's stepson's mother?
7. Your uncle's father's only granddaughter?
8. Your brother-in-law's wife's grandmother's husband.

Answers next week.

GIRLS' NAMES CONTEST

Again Richard Stear of Pennsylvania has furnished us with an interesting puzzle. Find the names given in the list below; hurry your answers to Puzzle Editor, Pennsylvania Farmer, 7301 Penn Avenue, Pittsburgh, Pa., and perhaps win the prize of a book which will be sent to the one sending the correct answers, accompanied by an interesting letter on any subject.

1. A prominent Easter flower.
2. A time for violets.
3. A woman's shoulder cape (or a name for a collar).
4. A jewel.
5. What Dad sometimes does with baby.
6. How to write a postscript.
7. First steps in music.
8. A great virtue.
9. An article.
10. The night before.
11. A spinning machine.
12. What a scissors grinder and a locomotive have in common.
13. Two consecutive letters of the alphabet in transposed order.
14. What would an army do if they found a river too deep to ford?
15. A fine quality for a woman to possess.

Answers and winners next week.

Fond of Music

"I SEE by the paper they are going to have a chaperon at the dance tonight," giggled Miss Nino Clock. "Won't that be heavenly? I've always wanted to hear one and I'm getting so tired of saxophones."

—Emporia Gazette.

Little Folks' Corner



Drawn by Leah Mellett

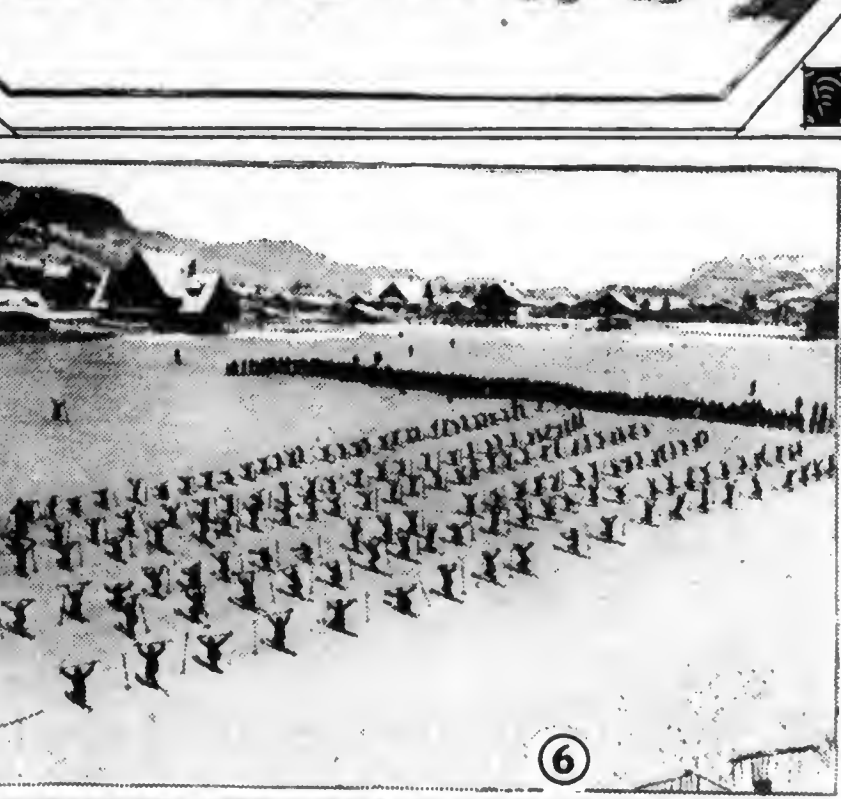
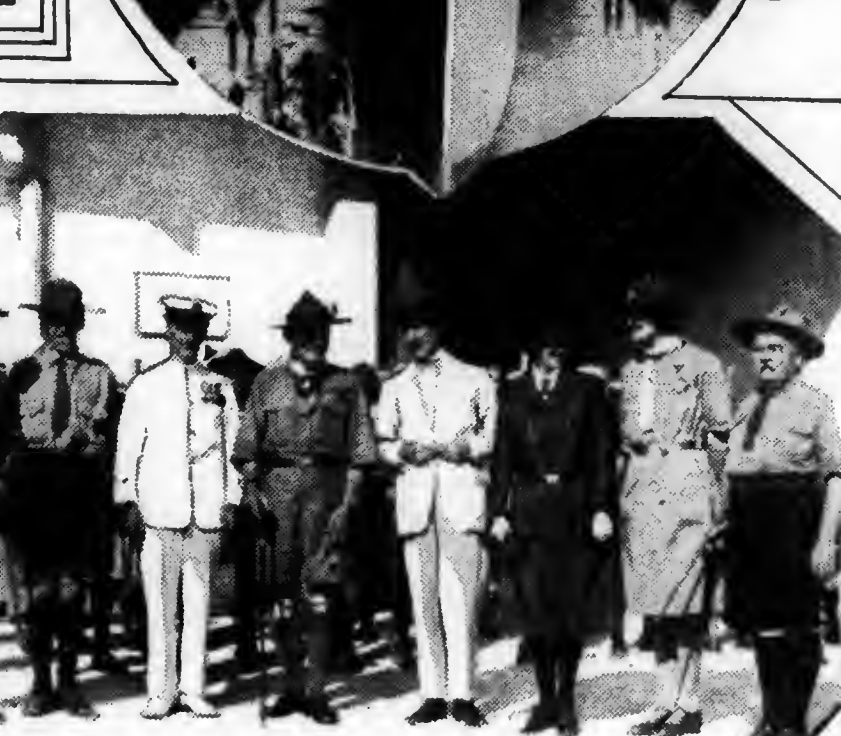
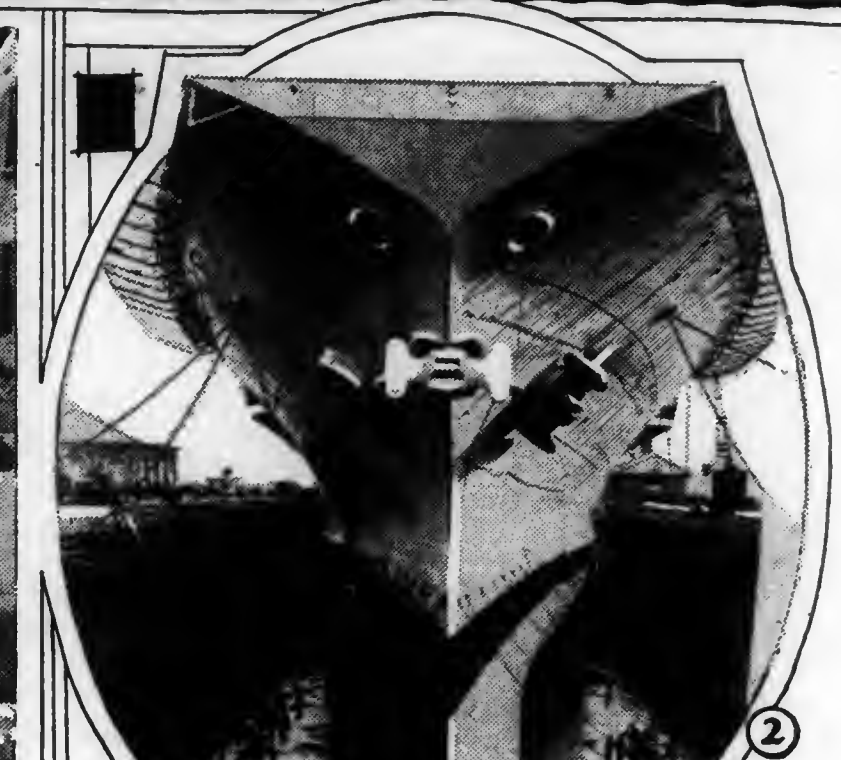
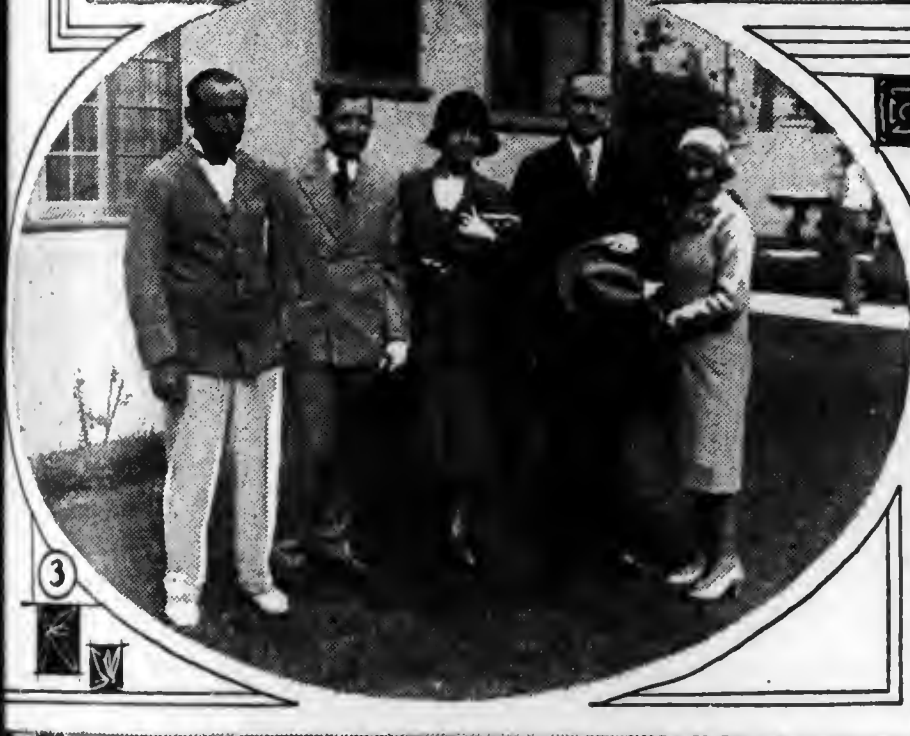
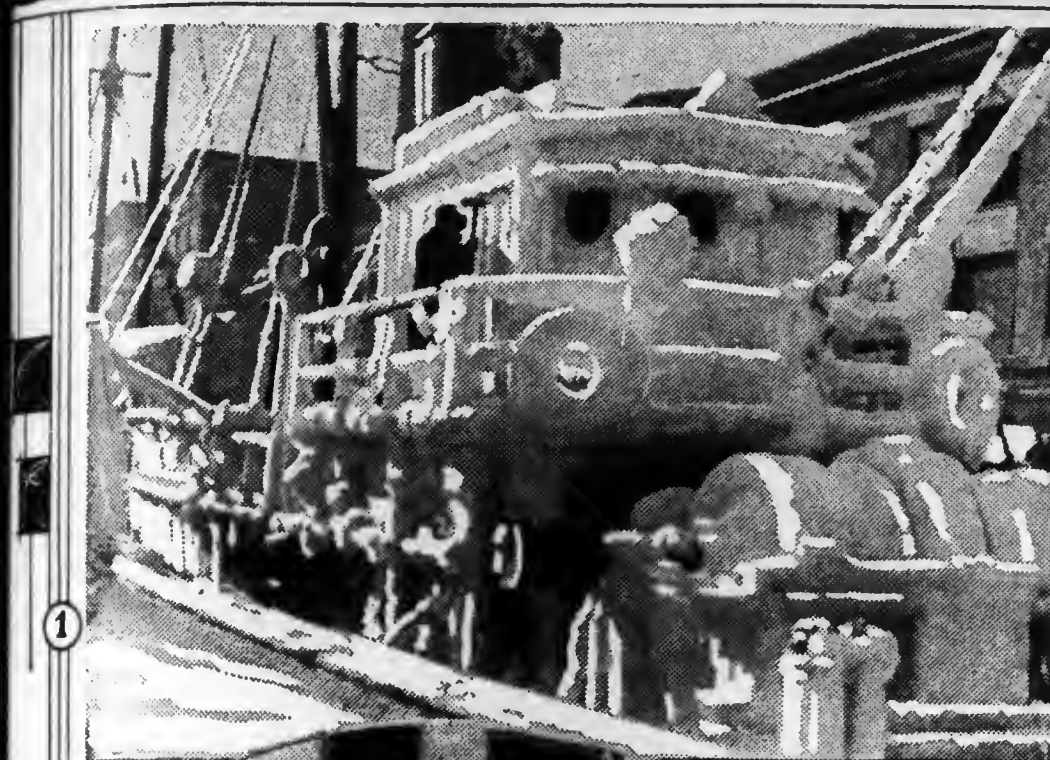
"Dear me!" says Granny. "What a big patch this will take." To the boys and girls who color this picture the best, a jumping rope will be sent. Hurry your letter back to Little Folks' Corner, Pennsylvania Farmer, 7301 Penn Ave., Pittsburgh, Pa.

Colored by

Address

R.F.D. Age

PASSING EVENTS IN PICTURES



1. Boston, Mass.—A study in white—the steam trawler "Georgetown" photographed on its arrival at the South Boston Fish Pier from the fishing banks, clad in a coat of solid ice. Note one of the crew attempting the job of removing some of the ice from the ship.
2. Giant aircraft carrier "Lexington" is a city in itself. Photo shows the funny-faced bow of the giant aircraft carrier, U. S. S. Lexington, in dry dock at Hunters Point, San Francisco, Calif.
3. Hollywood.—Photo shows, left to right: Douglas Fairbanks, Will Hays, "Czar of Movie-

dom." Mrs. Coolidge, former President Calvin Coolidge and Mary Pickford—photographed during the former President's tour of the Hollywood studios.

4. Boy Scout founder visits Nassau. Sir Robert Baden Powell, founder of the Boy Scout movement and Lady Baden Powell, Chief Guide of the English Girl Guides, a counterpart of the Scouts, arrive at Nassau for a short mid-winter vacation and are greeted by Sir William Orr, Lieut.-Governor of the Bahamas and the Chief Scout Masters of the Islands.

5. Monster military review climaxes Wash-

ington birthday celebration. A general view of the great military parade which climaxed the annual Washington's birthday celebration at Alexandria, Va., a quaint old town near the Capital, closely connected with the latter days of the Father of our Country.

The parade was reviewed by President Herbert Hoover and Governor John G. Pollard of Virginia.

6. Opatstorf, Germany.—Photo shows about 150 youngsters in a ski exercise on children's day of the German ski championship meet held here.

(Copyright by Underwood & Underwood)

Farm and Dairy

By L. W. LIGHTY



Thousands of feeders have found that Larro is the one feed that makes a "ringer every time" in profit over feed cost.

Dairymen who feed Larro sometimes try cheaper feeds hoping for good results. They may get good results temporarily—but when milk production starts falling—when the cows go off-feed—constipation or udder trouble set in, they quickly come back to Larro.

They know that Larro keeps their cows in the pink of health and condition—and that it gives them the highest profit over feed cost.

T. J. Grace & Son, Rutland, Vermont, say:

"Have used Larro seven years. Fully convinced it made more profit for us than any other feed we could have used... Have tried other rationals but always come back to Larro. Our herd has been free from udder trouble and off feed condition... We attribute this to your safe and uniform feed."

The exact balance of ingredients required to produce the highest profit over feed cost has been proved by years of tests at the Larro Research Farm... at the Larro Mill that balance of ingredients is accurately maintained by an exclusive Larro process... Each bag of Larro is uniform in analysis, texture and feeding value.

Try Larro and you will know why it gets a "ringer every time". Your Larro dealer keeps a fresh supply on hand.

THE LARROE MILLING CO., DETROIT, MICH.



Larro

FEEDS THAT DO NOT VARY
FOR POULTRY—HOGS—DAIRY

Larro Family Flour for - Bread - Biscuits - Cakes - Pies

Herd Infection

Write for information. Ask for a FREE copy of THE CATTLE SPECIALIST and how to get the PRACTICAL HOME VETERINARIAN a livestock Doctor Book for 25 cents. Find out why your cows lose calves—why they retain the afterbirth—why they fail to breed—why they have garget—why your calves have scours and colics—why you have a shortage of milk. Veterinary Advice Free. Write to

DR. DAVID ROBERTS VETERINARY CO.
126 Grand Avenue
Waukegan, Wis.

When writing advertisers please mention Pennsylvania Farmer

I HAVE a letter from a middle-aged man presenting a phase of life that is enacted frequently. He says, "I had a pretty good farm half paid for, but the very high wages induced me to sell about a dozen years ago, move to town and buy a home which I did not quite half pay for. In the public works I got the high wages. Desiring to live on the higher plane we heard so much about, the debt on the home was not reduced."

"Two years ago things were not so brisk and I could barely hold my own. Another year of it and I will have no home nor any way of making a living."

"On the farm I never failed to have a living and almost every year I made a small payment on my indebtedness. Had I stayed on the farm it would now be paid for and I would be assured of a home and a living. What a fool I was. Only one poor consolation, there are many others."

It strikes me that this is a fair portrayal of the condition of a goodly number of folks right now. Our lot on the farm is often far from ideal, but I have knowledge of very few people on the farm who are not making a living, but hundreds are making application to the charitable organizations for help in our city. I was told lately by one who knows that there has not been such a demand for help by the hungry and badly clothed for twenty years as now in our home city.

This winter plenty of men were glad to work for the farmers for a dollar a day and three square meals, because it seemed on the farm was the only place where three square meals could be had.

They Would Make Cheese Instead of Butter

"Butter is a drug in our market and cheese is not to be had. Would it be a good plan to turn the milk into cheese instead of butter?" This from one inquirer. Another puts it in different words, but it is the same question.

Every one knows my motto is to perfect yourself on a specialty and stick to your last. Yet there is a time for everything and when a change is necessary it should be made in a whole-souled and determined way. Our best should be given to the new course adopted.

This low butter price may be temporary. A great quantity of butter in storage is being moved and a great many people are short on work and money, hence the accumulation and drop in price. But it is entirely possible that these things are not temporary.

I realize the truth of what the inquirer says about cheese not being generally offered. Cheese is rarely kept except in the larger cities, and there I have to make an effort to get good cheese.

A few years back I told the story of F. W. Shank of Ohio who by cheese making on the farm paid for an excellent Richland county farm and another large one in Alabama. His customers still carry the cheese from his place as rapidly as he can make and cure it.

Comparative Prices and Quantity

Usually the price of butter per pound is not quite twice the price of Cheddar or brick cheese. Just now the price of the best butter in the chain stores is 45c and the price of cheese is 32c per pound. Roughly speaking the milk that makes one pound of butter will make two pounds of cheese, but a good cheese maker will do some better.

Cheese is a most excellent food and doubtless hundreds of tons of milk that is not wanted now as milk, cream or butter should be turned into cheese and marketed so consumers could get it and enjoy it, but at the same time

I want to warn the inquirers that cheese-maker has no soft snap. Cheese making is as fine an art as is butter making and you have a lot to learn before you will make a class article.

Good equipment is necessary and that requires quite a little outlay cash. Remember you have to make cheese every day for 365 days in year. You make butter three or most four times a week. This is serious consideration.

Then you must have a good room for the cheese, because if it is not well cured it is a very poor article of food.

Feed for Bulls

Will you inform me what you feed or what you think is best to feed bulls kept for more than two years? They put on flesh and still not get desperate? Some gentleman told me you have bulls four to five years old and I half doubted this statement. I have a bull nearly two years old and would like to keep him over this summer yet, so I would be exceedingly glad to be informed of your experience in this case. A. J. Meyer

EVERY bull we are using at College today is over six years of age. We got them all as old as we like to use a herd sire and daughters we can see and determine whether they are right from standpoint of type and whether they are good producers. We have seen bulls that are from 10 to 14 years of age and are in good breeding condition.

One of the important things to a bull in good breeding condition to give him plenty of exercise. Have a bull exerciser, sort of a m-go-round, to which we tie six bulls one time and drive them around an hour or two every day.

The ration for the bulls is as follows: 150 lbs. barley, 150 lbs. meal, 200 lbs. oats, 100 lbs. distillers grains, 50 lbs. linseed oilmeal, 50 soy-bean meal, 50 lbs. peanut meal. We feed the bulls from four to five pounds of the foregoing mixture in addition to eight pounds of clover and timothy hay and 15 pounds of corn silage. A. A. Bock

C. T. A. Report

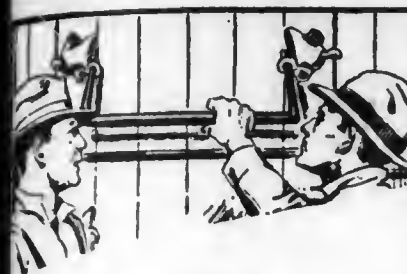
Laurel Hill

THE Laurel Hill Cow-Testing Association of Bradford County, Pennsylvania, finished its 15th December 1, 1929, with 16 whole members and one part-year member. The total number of cows for year was 450. The results of the association for the fifteen years are as follows:

| Year | Lbs. Milk |
|-----------|-----------|
| 1913-1914 | 6115 |
| 1914-1915 | 6572 |
| 1915-1916 | 6680 |
| 1916-1917 | 6908 |
| 1917-1918 | 6905 |
| 1918-1919 | 6989 |
| 1919-1920 | 6989 |
| 1920-1921 | 6544 |
| 1921-1922 | 6439 |
| 1922-1923 | 7270 |
| 1923-1924 | 7170 |
| 1924-1925 | 6874 |
| 1925-1926 | 7581 |
| 1926-1927 | 7517 |
| 1927-1928 | 7381 |
| 1928-1929 | 7720 |

Eleven herds with an average five cows or more exceeded an age of 300 pounds of butterfat. Complete list follows:

| Owner | Breed | Milk |
|-----------------|---------|--------|
| C. S. Chaffee | R.H. | 11,500 |
| J. R. Duane | R.H. | 9,650 |
| J. E. Meredith | R.&G.H. | 8,800 |
| D. E. Tracy | R.&G.H. | 8,500 |
| R. B. Arnold | R.H. | 8,000 |
| D. B. Young | R.&G.H. | 8,000 |
| J. E. Meredith | R.&G.H. | 8,000 |
| Roy Young | R.&G.H. | 8,000 |
| I. P. Chaffee | R.&G.H. | 8,000 |
| Albert Madigan | R.&G.H. | 8,000 |
| Fox Chase Farms | R.&G.H. | 8,000 |
| G. J. Griggs | P.N. | 8,000 |
| Tester | County | 8,000 |



Everything that a Silo can have—plus SAFETY

That's the Unadilla—the most popular silo made! Here is a real tower of strength! Great, strong, steel cables imbedded in concrete hold the Unadilla erect, steady and firm on its foundation. So easy to erect that a handy man and a boy can do it easily and quickly.

Easy and safe to climb as walking upstairs for the patented door fasteners form a convenient, permanent ladder of wide, low, safe rungs directly under the openings. The doors open automatically when the fasteners are raised. They do not freeze in or stick, yet are water tight and frost repelling.

The most famous dairy farms use Unadilla! Why not you? Send for free, big, illustrated catalog today; also prices, terms, etc. Real discounts for cash and early order. Don't wait—get in line for a Unadilla now and settle your silo problem for good!

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Unadilla, N. Y.
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CHAMPION SPECIAL The Lowest Priced Permanent Silo in the World

SAVE MONEY because of low price and special offers on famous Champion Concrete Silos. The discount, special terms, wonderful offers are not offered to other silo companies.

GIANT POULTRY HOUSE Over 1000 sq. ft. of space. Ready to erect. Made in sections, easily erected, can be extended to suit your flock. 16 and 17 ft. round body. 8 ft. standard 3 x 4 ft. section. Cheapest housing per hen of any house. Proper ventilation. Complete with feed troughs and nests or can be divided for brooder and poultry house. Champion brooders \$40.00 up.

NEWTON'S Silo Co. Springfield, Ohio

Heaven, Goughs, Goodfellow, Worms. Most for cost. Two cow silos for \$1.25 per cu. ft. Dealers or by mail. The Newton Silo Co. Toledo, Ohio.

Radio Program

A GROUP of familiar friends of the National Farm and Home Hour radio audience will deliver the Department of Agriculture periods of this daily program during the week beginning Monday, March 17. Every speaker for the Department has frequently addressed the Farm and Home Hour folks between 11:45 and 12:30 p. m., Central Standard time, through NEC stations.

Features for the week aside from the regular monthly reports and commodity reviews and the weekly features of the hour are a talk on "Forestry and Erosion," by H. N. Wheeler, forest lecturer, and a discussion of the "Early Vegetable Situation," by W. A. Sherman, in charge of the fruits and vegetables division of the Bureau of Agricultural Economics.

Fruit and vegetable growers who are framing their plans for the spring also will be keenly interested in the Farm Board's period this week, for they will hear Mr. K. B. Gardner, in charge of the fruits and vegetables section of the Board's division of co-operative marketing of fruits and vegetables in 1930.

The complete program for the week follows:

Monday, March 17

The Feeder Sheep Situation.—C. L. Harlan, livestock statistician.

The Price Situation.—Dr. O. C. Stine, in charge of statistical research.

Tuesday, March 18

The Garden Calendar.—W. R. Beattie, horticulturist.

Forestry and Erosion.—H. N. Wheeler, forest lecturer.

Thursday, March 20

The Farm Business Library.—M. S. Eisenhower, director of information.

The Early Vegetable Situation.—W. A. Sherman, in charge fruits and vegetable division, Bureau of Agricultural Economics.

Friday, March 21

Cooking the Spring Vegetables.—Fanny Walker Yeatman, foods specialist.

The Week With the Farm Board.—Edgar Markham, assistant to the chairman, Federal Farm Board.

Cooperative Fruit and Vegetable Marketing in 1930.—G. B. Gardner, fruits and vegetables marketing specialist, Federal Farm Board.

Study of Ox Warbles

VETERINARIANS and leaders in the livestock and dairy industries are reminded that the Bureau of Entomology, U. S. Department of Agriculture, published about four years ago, Department Bulletin 1369-D, "The Cattle Grubs or Ox Warbles, Their Biologies and Suggestions for Control," which treats in detail of the studies and experiments by the Bureau dealing with this pest.

A small stock of this bulletin is still available for distribution to those who desire somewhat fuller information than is provided in the more recent popular-style, Farmers' Bulletin 1596-F, "Cattle Grubs or Ox Warbles with Suggestions for Their Control," which is also obtainable on application to the Office of Information, U. S. Department of Agriculture.



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THE story of Gator-Hide, the Miracle Paper, told in a new book that is actually the world's first Mulch Paper Planting Manual. Every planter should read it. Every planter MAY read it, just by mailing the coupon. Don't delay another minute. Mail YOUR coupon now.

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Please send your booklet, "The Miracle of Mulch Paper and Gator-Hide Mulch Paper Planting Manual," and tell me where I can secure a supply of Gator-Hide Mulch Paper in this territory.
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ADVERTISERS in Pennsylvania Farmer want your business. They want to give you satisfactory service and aim to please you. When writing advertisers, tell them where you saw their advertisement. You will do them a favor, as well as help yourself and Pennsylvania Farmer.



This De Laval Milked Herd Leads in Pennsylvania

THIS herd, owned by Mr. H. A. Snyder, Montoursville, Pa., was the first herd in the Pennsylvania cow testing associations to have an average of 526.4 lbs. of fat and 14,293 lbs. of milk. It was also the first herd to be above the 500-lb. fat average for two successive years. It has led the White Deer Valley Cow Testing Association for three successive years.

Mr. Snyder uses the De Laval Magnetic Milker and he writes: "Before installing the De Laval Magnetic Milker I made a careful investigation of several different types of milking machines. I believe that I made a wise choice, for the results obtained with the De Laval Magnetic have been very satisfactory."

Mr. Snyder is but one of the hundreds of dairymen in Pennsylvania who have found De Laval Milkers to be the better way of milking.

Write for complete information.

THE DE LAVAL SEPARATOR CO.
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CHICAGO 600 Jackson Blvd.
SAN FRANCISCO 61 Beale St.

YOUR PROFITS ARE IN DANGER

ABORTION
One out of every five cows reacts to this terrible disease... each "aborter" costs you at least \$100. B-K kills abortion germs. The application of B-K by spraying and as a vaginal douche helps prevent the spread of this disease.

SCOURS
For relief use the B-K Treatment. To help prevent scours follow the B-K plan of sanitation.



B-K is 10 times more powerful than carbolic acid as a germ killer... Avoid losses from contagious diseases by prompt efficient treatment. A valuable 68-page illustrated book discussing these diseases, their causes, prevention and control, will be sent on request.

GENERAL LABORATORIES, Inc.
315 Dickinson Street, Madison, Wisconsin

Read the advertisements for devices which will help you with the household chores that you dislike most.



Spring time is tonic time

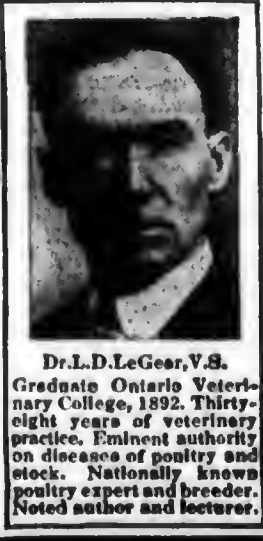
After the rigors of winter your cows should be given a tonic to tone up the system and stimulate the appetite. They have been without green feed for a long time, and a tonic will help them in shape for the heavy work ahead. Remember! A few cents invested now will return a hundred-fold later on. Use—

Dr. LeGear's Stock Powders

Contains mineral and vegetable ingredients scientifically compounded to produce an effective tonic, appetizer, conditioner and regulator for cows and other farm animals.

Free Book **Dr. LeGear Offers Guaranteed Results**

This coupon good for a free book. Get from your dealer enough of Dr. LeGear's Stock Powders to make a sixty-day test. Mixture with any feed. If not satisfied with results at end of sixty-day trial, your dealer will cheerfully refund every cent on dairy cows, horses, hogs, sheep and poultry. (Usual price 50c). Take coupon to your local dealer. If he does not have book, send coupon with 10c to pay postage and mailing to Dr. L. D. LeGear, V.S., 4114 Beck Ave., St. Louis, Mo.



Dr. L. D. LeGear, V.S., Graduate Ontario Veterinary College, 1892. Thirty-eight years of veterinary practice. Eminent authority on diseases of poultry and stock. Nationally known poultry expert and breeder. Noted author and lecturer.

Ten Days of June in February

(Continued from page 5.)

We had dinner that evening and musical entertainment on the roof garden of the Hillsboro Hotel in Tampa. There were special rooms where we could refresh ourselves before going exploring or turning in early. Next morning a great cigar factory; a ride along beautiful Tampa Bay and across the Gandy Bridge to St. Petersburg, the Sunshine City where the newspaper gives away its whole edition every day the sun doesn't shine. The city is famous for its world championship horseshoe pitching contests. Two champions gave a demonstration match for us. They were too good. Why watch when you know the next one will be a ringer? They should have missed once in a while to break the monotony, or else let some of us pitch against them to prove it isn't as easy as it looks.

Back at Tampa Mayor McKay dined with us and promised us a much better time if we would come back next year. We hadn't given him enough warning this time. Mr. Scott, sales manager of the Florida Citrus Exchange, brought us greetings from his great organization.

South of Tampa is great Manatee county, one of the first in Florida in its output of winter vegetables and a great producer of citrus fruits as well. Bradenton's business men under Chairman Lathrop turned out in force on our arrival there. They took us out to their beautiful country club, gave us a royal banquet of Manatee county products and a feast of facts about the greatness of Florida in general and the land of Manatee in particular.

Next morning they met us again and backed up the facts by showing us their rich farms and groves, their beautiful homes and hard-to-leave bathing beaches on the blue Gulf of Mexico. They are mighty proud of their farms and especially of one of their dairy farms Mr. Frobock's Inspiration Ranch on Palma Sola Bay. It has the only pure-bred Guernsey herd in Florida.

At noon they turned us over to the Sarasota Chamber of Commerce, the eighty-year-old father of whose president, Mr. Smith, says he would rather pick roses in Florida these winter days than iceleaves off the pump back where he came from.

A Feast of Celery

Another unforgettable automobile trip and a splendid view of the rich black soil of Palmer Farms. It produces hundreds of carloads of the crisp celery we sampled at the packing and pre-cooling plant. For once in our lives some of us had all the celery we wanted—rather, all we could eat—for the plant was started on a holiday for our special benefit and we could pick off the conveyor chains as many of the clean white bunches as we wanted to carry away.

From the celery farm to the circus the winter quarters of the great Ringling Brothers-Barnum-Bailey Circus. Mr. Ringling himself opened the gates to us. It was a great opportunity to see the animals and their off-stage tricks and to get acquainted with the lion tainers, the elephant trainers and the tight-rope walkers.

Having seen some of north Florida, central Florida, and the West Coast region, we set out for the famous East Coast, playground of the nation's millionaires and some common folks, too. On an automobile tour around Palm Beach and West Palm Beach, we saw the magnificent homes, clubs, hotels, yachts and boulevards that have made "Palm Beach" a synonym for great wealth.

Then our Chamber of Commerce hosts struck out for the west and in a few minutes we had left civilization behind. We were bound for the Everglades. Miles of cypress swamp. Trees were bare, for this is winter in Florida, too, even if it is warm as our June. Clumps of green in the tree

tops—orchids we were told. Past a great dairy, Loxahatchee Farm, whose success proves the possibilities of this country. I had the good fortune to ride with the man who developed this farm, Mr. Nielson, now president of the West Palm Beach Chamber of Commerce. When he started there was no road through this country. He traveled by speed boat on a drainage canal, as do many of the inhabitants of the Everglades to this day.

The growth of small trees gave way to a level growth of tropical grasses stretching away to the horizon and we were in the Everglades. The broad highway was built on the earth dug out of the drainage ditch which ran parallel. The long level miles weren't monotonous for we were occupied watching for alligators and for the strange birds we see in our zoos back north. There was an occasional pumping station to lift the water from one canal to a higher one. Thus is the water level lowered so vegetables and sugar cane can be grown on that black soil.

Fifty Miles to a Telephone

It's lonely country. The week before Mr. Nielson had been out hunting. His car broke down and he had to walk some 50 miles for help.

Lake Okeechobee came into view flanked by great cane fields. Land at Clewiston, a civilized spot resulting from the operations of the Southern Sugar Company. Although it has been shut down for its weekly cleanup, the Clewiston sugar mill was put into operation for us. Long train loads of cane stood on the tracks waiting their turn; this immense plant can crush 4,000 tons of cane a day producing over 400 tons of raw sugar, 400 tons of fiber and 25,000 gallons of molasses.

Back in West Palm Beach M. S. Dowell, Director of Agriculture Extension in Pennsylvania, saw us. It was good to see him and Mrs. M. Dowell, seeking and finding health and rest in Florida while on sabbatical leave.

Morning saw us farther down the coast at that magic city, Miami. We toured its water-front drives, its made islands with their palatial homes, its boom suburb with the hundreds of unoccupied houses. The boom was a bubble and it burst. All of Florida suffered the same way. Now sanity reigns again and most of the state is moving forward on a sound basis. The boom left many valuable public improvements; and course the bursting of the bubble didn't change that health giving climate. At the personal invitation of its owner whom we met first in Jacksonville, we made a short stop at the residence of J. C. Penney, who was famed recently as the temporary residence of President Hoover.

The big event at Miami was an embarkation on the Steamship Eufrasia for the over-night trip to Cuba. Mr. Johnston of the Clyde Line gave us a good welcome and Mr. Harms and Mr. Harms, Purser and Cook, Steward of the Eufrasia, made us feel at home on the boat. A guide guided us down the narrow passages to the open sea. Scores of pleasure and fishing crafts were coming and going for the night—flashing speed boats or more prosaic crafts that chug along in leisurely fashion, their owners waving a friendly salute.

As we swung out into the Gulf Stream we settled in our chairs to watch the sun set behind the Florida Keys. Then dinner in the spacious dining room, long walk around the ship, a visit to the "races" on the after-deck, or an easy chair inside to listen to the orchestra and watch the dancers. The water was smooth; of course, there was a ground swell which drove some of their steamers. But only a few were affected. (Cont'd next week)

COMMON PICK YOUR PRIZE!

BOYS/GIRLS

FIVE PRESENTS SURE TO BE YOURS! For selling only 20 packets of "Garden-Spot" seeds at 10c each. **MONEY TO PAY**, excepting on special value Stamp-Watch offer. Everybody plants "Garden-Spot" seeds. Beautiful colored packets filled with living seeds guaranteed to grow. Known with favor for more than 20 years from Maine to Mexico. Lots of people will take five to ten or more packets. Your own family and a few friends will buy all of them. You can sell out in no time.

HERE'S WHAT YOU GET FOR SELLING ONLY 20 PACKETS. One big premium, your selection; one extra present (a moving picture show); one prize package premium; and an equal chance to win part or all of \$1500 in Cash Prizes.

EXTRA. We send along at once one package of \$1000 Prize Garden-Wonder, \$100 Prize Oriental Mystery Flowers, catalogue of many presents, sample entry tickets, form. **SEND NO MONEY NOW—WE TRUST YOU.**

GET THIS EXPO CAMERA FREE. Win part of all of \$1000 in Cash Prizes given by us for the best picture sent in of vegetables, flowers, garden, yard, or home. Four prizes of \$25 each. Send in as many pictures as you like and you have an equal chance.

Expo Camera—a new, easy to use, 3 1/2 inch picture camera. Light, compact, easy to operate; will give you lasting pleasure for years to come.

Send no money—just name and address. We trust you with 20 packets of "Garden-Spot" seeds to sell at 10c a packet. When sold, send \$2 collected and camera.

Send for seeds today. LANCASTER COUNTY SEED CO., Station 377, PARADISE, PA.

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NAVY MODEL AIRSHIP and PARACHUTE. Mammoth 6-foot airship with infallible parachute with automatic release and complete instructions for flying. Will fly for miles at height of 1500 feet, when ship is 800 feet in air, parachute automatically released and parachute drops slowly and gracefully to earth. Will attract the crowds for miles around and create a bigger sensation than a three-ring circus.

Send for seeds today. Send for seeds today. Cut out and mail the order form or write a letter or a post card to:

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SCHOLAR'S PRIZE. A dandy handy machine which plays records like a big fellow. Well and dandy. Handsome case in color. **Send no money—just name and address.** We trust you with 20 packets of "Garden-Spot" seeds to sell at 10c a packet. When sold, send \$2 collected and camera.

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BOYS' SHARP SHOOTING RIFLE. A powerful, straight-shooting, beautifully designed, well-balanced rifle. Perfect for target shooting or hunting. **Send no money—just name and address.** We trust you with 20 packets of "Garden-Spot" seeds to sell at 10c a packet. When sold, send \$2 collected and camera.

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WIN A PRIZE \$1000

NEW GARDEN WONDER! What is it? Plant some and see. \$500 for a name. \$1500 in prizes.

This charming curiosity produces fruit 2 to 4 feet long. Delicious eating. Fine for pies. Produces fruit in six weeks. In order to introduce this wonder vegetable we are giving away **Three Big Prizes. \$500 to you** if you send in a name for this curiosity and yours in the name selected. In addition to the big prize we will give \$5 each for the 100 cleverest names received.

\$500 to you if you send in the best letter telling the merits of this Garden Wonder as you've found them. **\$500 to you** if you grow the biggest and best in your garden this summer. A surprise present for all who qualify.

It costs nothing to enter this fascinating contest. We send at once along with seeds for you: big picture in colors, package prize wonder seeds, directions how to plant and cook, contest rules, sample entry tickets and big catalog of premiums. Also extra package of \$100 Prize Oriental Mystery Flowers.

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Superior, grand Champion Stallion, bred for export, Junior Champion Stallion, aged, recent kind with quality, blood and three and four year olds. If in need of a fine horse, come and see these.

Farm, Fred H. Cook, Mgr., Beaver, Pa.

Percheron Stallions

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Good big young PERCHERON and BELGIAN Stallions. Priced right.

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Good Swiss and Nubian, from heavy milking. Big bucks and does; jacks, rams, kids & kids. **W. E. McPARRAN, Manheim, Pa.**

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Good Swiss and Nubian Does. Bred and fresh. Young bucks. **New Canton, Va.**

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Write for Hog Book. Originals and most reliable breeders. **L. B. SILVER CO., Adia, Ohio.**

O. I. C. Choice 100-lb. hogs, priced reasonable, shipped on approval.

REGISTERED O. I. C. BLOOD SOWS, service hogs, shipped on approval. **GEORGE N. RUPRACHT, Mallow, N. Y.**

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of approved breeding, bred sows, service hogs, shipped on approval. **Private Sale Catalog to prospective buyers. C. S. EPPLEY, Zanesville, Ohio.**

BIG TYPE POLAND-CHINAS.

Full pigs either, big, fast feeders. Price right. **O. C. POWERS, Adia, Ohio.**

REG. SPOTTED POLAND-CHINAS.

Sows, hogs and pigs. Also Guernsey cattle. Write wants. **A. M. KENNEL, Honey Brook, Pa.**

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Registered. Superior breeding stock. **WOLF CREEK FARM, R. 2, Slippery Rock, Pa.**

CHESTER WHITES.

Big type Champion blood, with a record of best of show. **L. C. Corman & Son, Beech Creek, Pa.**

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March gilt, bred for service hogs, full pigs of both sexes. **Geo. F. GRIFFIE, R. 3, Newville, Pa.**

Big Type Chester White Pigs

Shipped on approval. **Geo. F. GRIFFIE, R. 3, Newville, Pa.**

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Full hogs and gilts. **A. H. Crowner, Mt. Sterling, Ohio.**

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Big type Reg. Durocs, priced right. Shipped on approval. **G. C. Sauer, Hummelstown, Pa.**

DAIRY CATTLE

Holstein Bulls for sale, from an accredited able age, from K. herd, from calves in service. **F. O. P. 32, the 1,000-lb. but, Crystal Spring Stock Farm, Littlestown, Pa.**

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AYRSHIRE CATTLE of the best blood lines. **Geo. B. McConnell, Wellington, Ohio.**

REGISTERED, eight-month-old GUERNSEY

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For Sale

25 head young Jersey cows and heifers, all registered, 850 lb. and over, bred for service. **Highland Farms, Hurd, Edgemoor, Pa.**

Registered Jersey Bull

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4 wks. old, Two, 8 mos., two ready for service. Heifers, Accredited. **C. P. & M. W. Bigham, Gettysburg, Pa.**

REGISTERED JERSEY HEIFERS

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JERSEY BULL CALVES

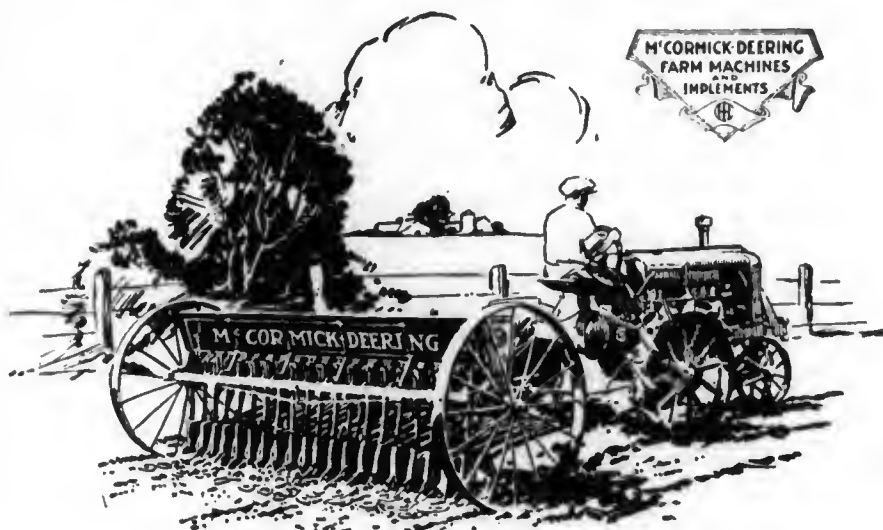
Sired by a son of St. Maw's, grandson of the 23rd and 24th. **C. E. ROY, Sabula, Pa.**

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and heifers, 6 to 12 months old, accredited herd. Write us. **J. M. MAIN & SONS, Shippensburg, Pa.**

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Business Letter

DULL business and unemployment are believed to have hurt the hog market this week. The tone was weak, with some recovery at the close. Marketing of hogs was very light, yet the average price here dropped to \$10.55, from \$10.80 last week. A year ago the average was \$11.45.

Eleven markets had only 498,000 hogs this week, lightest for the week in many years, and comparing with 625,000 last week, 520,000 the same week last year and 709,000 two years ago.

Hog Futures

Trading has been light during the first week of the hog futures market. Whether there will be enough trading eventually to make a real market is still uncertain. So far there has been no farmer trade and very little packer trade.

The following price ranges for the week will give some idea of future price expectations: March light hogs, \$10.85 to \$11.25; April light hogs, \$11.25 to \$11.65; May light hogs, \$11.35 to \$11.75; September light hogs, \$11.40 to \$12. April medium hogs, \$10.50 to \$11. March heavy hogs, \$9.95 to \$10.20; April heavy hogs, \$10.00 to \$10.20; May heavy hogs, \$10.

Light Cattle Supply

The cattle market had a pretty good tone all week up to Friday when with a light supply butcher stock declined again.

Best steers sold this week at \$15, with ten head of fancy yearlings at \$15.75. In the main steers sold higher this week than last, with the average at \$12.55 showing a 30 cent gain over last week. A year ago the average was \$12.35 and two years ago \$13.10. But it took a very light supply, here and at other leading points, to hold the market up. Scarcity of weighty finished steers helps to hold the top of the market high.

Many Lambs to Come

Lambs gained a little this week, for a change. The market at the close showed an advance of 10 to 50 cents, but the average price of lambs at \$10.45 was the same as last week, and \$6.25 under a year ago. Federal steers still suffering heavy losses. Top lambs this week brought \$11.35.

It is estimated that there were 1,640,000 lambs left in the feed lots of the northern Colorado, Arkansas valley and Scottsbluff sections of Nebraska on March 1st compared with 1,210,000 on the same date last year and 1,005,000 two years ago. The western feeders have been holding back, with the marketing of native lambs accounting for the increase in the year to date.

Farm Board a Trade Factor

Speculation in wheat these days is based more on what the Farm Board will do than on supply and demand conditions. When prices sag for a day or two it is known that the Board will either do some talking or some buying to put prices back up, and this has become a trading factor of the first rank. How much it has made for shrewd speculators nobody knows. Wheat prices crashed early in the week and the following announcement was immediately forthcoming from the board:

"The Grain Stabilization Corporation will continue buying wheat at the market and remove whatever additional quantity that may be necessary to relieve the pressure and prevent any considerable decline in wheat prices. The Farm Board is prepared to advance to this farmers' organization whatever funds are necessary for that purpose."

The Stabilization Corporation is being accused of speculating in the grain market. There is no foundation in fact for this statement. The stabilization corporation is prepared and expects to take delivery of all grain purchased on futures contracts and merchandise it as the market conditions will permit.

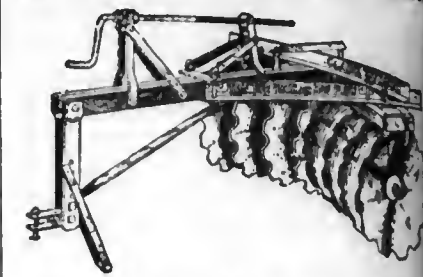
This had a pronounced effect on the market, and advances put closing prices about where they were before the Monday break. The statement was interpreted as meaning that unlimited funds will be available for the stabilization corporation.

In Canada

The governments of the three western Canadian prairie provinces are completing legislation this week to guarantee banks against losses on money loaned to the Canadian pools.

Chicago, March 8, 1930 Watson

Save 50% of Your Time



Cut the time you spend in orchards 50% and better work.

That's exactly what fruit growers are doing with the Clark "Cultivator" Bush & Bay Pine Harrow.

For this implement does both the work of mold-board plow and disk harrow in one operation. And does it better—in half the time.

The Bush & Bay Plow and Harrow plows and disks the soil—turns over weeds and weeds down—mutilates the soil.

It's nothing new, but in the orchard it does many jobs that would wreck ordinary tools.

It's just the implement—the only implement working hard-baked soil, stubble land, and drained bays and swamps, Leach land, custom land—no touch job.

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and I. W. SCOTT CO., PITTSBURGH, PA.

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SPEND one-third to one-half less time in milking than is required now. Then you and your family will have more time for leisure—for enjoying life. That is one reason why you should have a

Universal natural Milk

A Universal Milker actually helps increase dairy profits, too—by saving time and labor, and by producing cleaner milk for which you can get a better price. It's a practical, money-making, business investment.

There is only one Universal Natural Milker—the machine that "milk like the calf." More than 40,000 users milk their herds with Universals every day.

Learn more about this machine that helps make farm life more enjoyable and profitable. Mail the coupon—today!

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THE UNIVERSAL MILKING MACHINE CO.
Syracuse, N. Y.

Tickling Pigs' Appetites

HOGS do well for us in a wood lot. They work around rotting logs and decaying stumps and seem to get what a hog needs in the way of tonic. Every now and then we burn a brush heap for them and when we pass the spot a few days later the ground is bare, every remains of the fire cleaned up—eaten. There is something clean and fresh about the ground in a woods, something that keeps a hog's appetite strong and active.

By studying these hog preferences and hog thrifths based on woods life we have come to apply them wherever we keep hogs. We want to winter our hogs on a sod field that is due to be plowed in the spring. This gives a clean place to feed each time. Even if the ground is soft, one feed in a spot is satisfactory regardless of mud—clean and sweet mud is ever so much more preferable than a spot reeking with hog manure and urine. We anticipate soft spells and scatter areas of straw on which to feed the corn.

We do not bother our heads trying to understand why a hog eats coal slack, but we always have a load of soft coal screenings for our hogs to work at whenever they want it. We char wagon-loads of corn cobs every year for our hogs, both winter and summer. We rake them into piles and set them afire—when all aglow we quench with water and the hogs are already waiting around the pile to take care of this excellent mineral and appetizer.

Vinegar and Pumpkin Seeds

The human race eats carloads of ketchup and tank-cars of vinegar every year, appetizers and real digestive alternatives. Long ago we took to giving fattening hogs a dash of cider vinegar in their slop two or three times a week; our sows on heavy rations sucking their pigs always get vinegar, half a glassful two or three times a week.

It is folly and carelessness to throw the house ashes over the back fence when hogs are hungry for it, ready to pay a good price for it in thrif. Whether the ashes are from wood or from coal makes no difference in our disposal of it—it goes to the hog lot (dry of course). There is no feeding value to speak of in apples, but our hogs get the apples as a general invigorator whenever there are apples going to waste. Fall pigs are voracious at devouring pumpkin seeds while the sows eat the pumpkins.

The hog will pay a man well for doing this kind of all-around thinking for him, whereas when shut up on a balanced ration of corn and tankage he may hanker for the dear and blessed things in the outside world that he can't get to!

Bulletin on Lambs

FARMERS who raise sheep for the sale of lambs will be interested in Farmers' Bulletin 1134-F, "Castrating and Docking Lambs," which may be obtained free from the U. S. Department of Agriculture, Washington, D. C.

This bulletin emphasizes the value of docking all lambs and castrating the ram lambs which are to be marketed, in order to get maximum gains and good prices when finished. Undocked ram lambs are often discriminated against, the bulletin shows, to an extent ranging from \$2 to \$5 per hundred pounds, in comparison with castrated and docked lambs of the same age. This is due largely to the greater uniformity and more attractive appearance which castrated and docked lambs present when marketed.

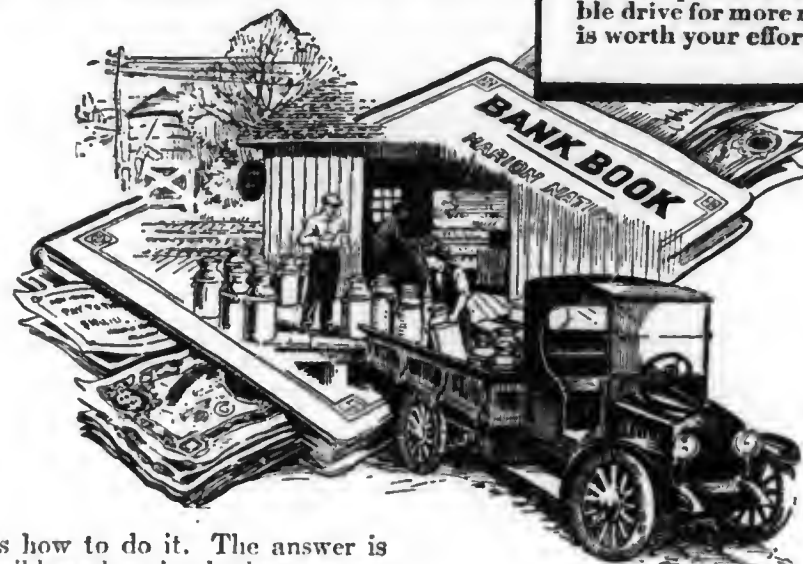
Owners of range flocks have long appreciated the value of castrating and docking, but these practices are not so general in the case of farm flocks. The bulletin describes and illustrates the operations of castrating and docking to aid farmers in performing the work safely and effectively.

More milk money

from the same
cows—with
the same feed

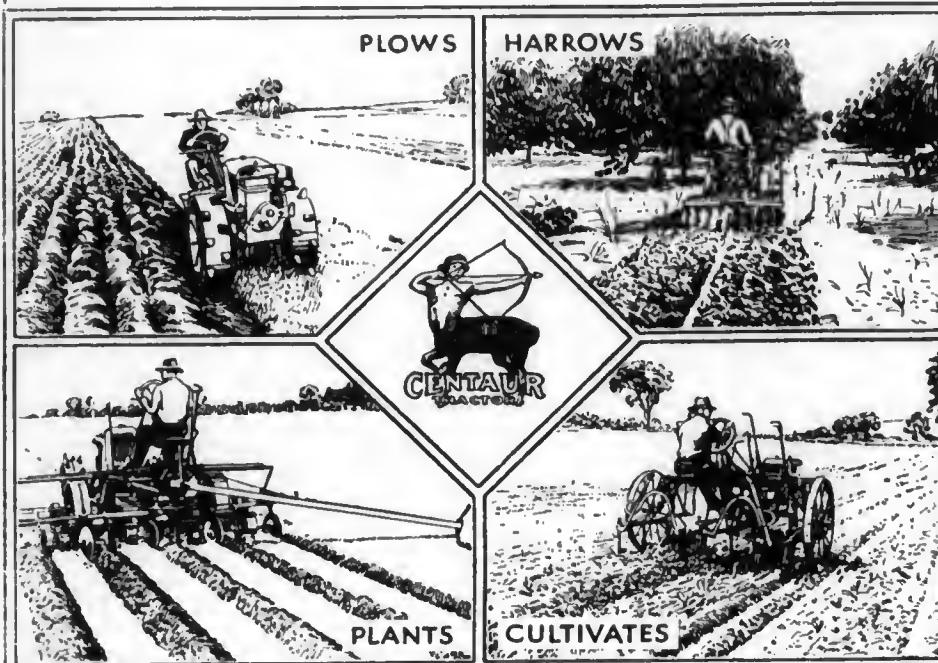
10%
MORE MILK
Doubles profits

In the average dairy net profits can actually be doubled by increasing the milk yield only 10%. After the cost of "feed and keep" are met, every quart of milk is clear profit. A sensible drive for more milk is worth your effort.



The CENTAUR 6-10

Does all the Work of Man and Team



Small Farm — Truck Farm — Orchard — Vineyard

Nothing half-way about the Centaur Tractor. It does all the work of man and team in tilling and cultivating the soil. Its six horse-power on the drawbar—ten horse-power on the belt makes it a real riding tractor—not a combination riding and walking job. Equipped with Centaur tools, it does the back-work, the arm-work and the leg-work of tillage and cultivation operations—all the man has to do is supply the brain-work to drive it over the field.

The new improved Centaur brings profitable power to small acreage at low cost.

It plows with a full-size 12 inch plow, discs, harrows, plants, cultivates, mows, does belt work and a variety of other jobs with the complete line of special tools. It really makes the small farm and truck farm a power farm; makes orchard and vineyard culture more profitable and more enjoyable.

Send the coupon for complete information.

THE NEW IMPROVED
CENTAUR
TRACTOR
Makes the SMALL FARM
a POWER FARM

CENTAUR TRACTOR CORPORATION
29 Main Street, Greenwich, Ohio
Please send information on Centaur Tractors
and Tools.
Name.....
R. D..... P. O.....
County..... State.....

SPRING SALE

Our "Royal" Modern Bathroom includes Bathtub, Porcelain Toilet and enameled Wash Basin. Complete with all fittings and Five-Year Guaranteed Materials.

\$52.50

We Pay The Freight on Everything

Write for FREE Catalog 90

J. M. SEIDENBERG CO., Inc.
254 West 34th Street, New York

STRAWBERRY PLANTS

Send today for Allen's Book on Strawberries—the best money crop. Delicious—Healthy—Profitable. 11 pages to grow them.

The W. F. ALLEN CO.
143 E. Market St. Salisbury, Md.

Read the Advertisements

they keep you to the fore of modern life. Through advertisements you've laid down the shovel and the hoe. You can buy a whole harvest ready-to-eat in cans. You've hung up the fiddle and the bow, for a radio. There's little old-time work left in this age of amazing short-cuts. Read the advertisements carefully and when answering them, say you saw their ad in Pennsylvania Farmer.

Philadelphia Produce Review

THE Philadelphia egg market opened in a steady position with prices fairly well maintained on average quality stock. The demand in most quarters was sufficient to effect close clearance of nearby eggs. A portion of the arrivals consisted of southern and southwestern eggs, ordinary in quality and available at listings. On Wednesday an active demand developed and prices advanced, despite the fairly liberal receipts of western eggs. The following day the edge was off the market and prices declined fractionally. Receivers held firm on their fine quality marks, which brought premiums in most cases.

It was generally anticipated that lower retail prices would encourage consumption, but this policy did not seem to broaden outlets to any extent. Receipts of nearby eggs were liberal in New York city during the latter part of the week, but the finer qualities met a good demand. The fancy closely selected stock brought the usual premium over quotations. There was some accumulation of nearby of average quality and this stock was hard to move. Nearby whites ranged from 28¢ to 32¢ per dozen, brown eggs from 28½¢ to 31¢ and mixed colors from 22¢ to 28½¢.

Butter Improves

The butter market during the week showed a decided improvement and prices advanced around 2¢ per pound on 92 score goods. Trading was more active in most all quarters. For the first time in several weeks receipts of butter were lighter than on the corresponding week a year ago. A slight improvement in the demand for storage butter was noted in the eastern markets. There is the belief that the low prices which have prevailed in all sections of the country have increased the consumption of butter. Butter production appears to be holding up well.

Poultry

There was a good demand for Leghorn fowl on the New York market during the latter part of the week while heavier colored fowl were barely steady. Receipts of nearby broilers were rather light but there was some accumulation and the market showed a weaker tendency. Fowl sold at 33¢ to 34¢ per pound, chickens at 23¢ to 35¢, Rock broilers at 30¢ to 45¢, Reds at 25¢ to 40¢, and Leghorns at 37¢ to 40¢. Fresh killed fowl were in light supply and the market was firm, especially for 4 pound and lighter stock. Fresh large fowl met a better demand. Receipts of nearby hot house broilers were very light with the market firm. Many however were poorly graded, or lacked quality and prices ranged from 25¢ to 47¢ per pound.

Potatoes Dull

The Eastern potato markets were generally dull during the week with trading slow. Philadelphia was the one exception to this and showed considerable improvement. The lower tendency of potato prices this month has brought a slackening in carlot shipments which are now running around 600 cars a day. Growers are indifferent about hauling at prices and refuse to sell at the prices dealers are offering. There seem to be few growers that are willing to sell as low as \$1 per bushel in western New York and most sales in the district are around \$1.10. There is very little speculative interest at present and considerable difference in opinion as to the amounts of potatoes that will be shipped from Pennsylvania, New York and Maine as well as other late producing sections.

Prices of Pennsylvania potatoes ranged from \$2.40 to \$2.90 per 100-pound sack with Philadelphia reporting the highest price. Various trade reports estimate that there were around 41,425 cars of old potatoes left on March 1 for shipment after that date. If this is correct, this is less than actually shipped during any season since 1919-1920.

Apples Steady

The apple markets continue about the same as for the last month. Trading has been rather quiet with prices of good stock well maintained. Supplies in eastern markets were moderate to liberal. Eastern Yorks and Baldwins sold around \$5 to \$6 per barrel at most points while Winesaps were reported at \$7.50 in Philadelphia. There seems to be considerable scald in the offerings in Philadelphia. The demand at shipping points showed a slight improvement with a few sales for export. Shipments of sweet potatoes ran around 40 to 50 cars daily with Dela-

ware and Tennessee still the leading sources of supply. The carlot movement from New Jersey has dropped and some days no carlot shipments were reported. Supplies of good sweet potatoes were rather light in Philadelphia and New York. The bulk of the offerings are of only average quality and sold around \$1 to \$1.25 per bushel. Fancy bright well graded stock was scarce and sold up to \$2.25, while plainer grades of stock from the Swedesboro section around \$2.50.

LIVESTOCK

PITTSBURGH

Cattle

Monday's supply was very light, only about 30 carloads. The few good fat steers were generally strong to a quarter higher, though none as good as last week's offerings. One load of well-fed 1,200-pound steers brought \$13.35 and one load of about the same weight \$13.10, while plainer 1,200-pound steers sold at \$12.50. Best heavy weight steers brought \$13 to \$13.25, only two carloads being good enough to command such prices. Useful handy weight butchers steers with flesh went at \$12 to \$12.25, lighter and plainer kind at \$11.25 to \$11.50, and common \$10.50 to \$10.75. Heifers were scarce and firmer. Cows were no more steady, few above \$9 per cwt. Calves brought \$5 to \$5.25 largely. Bulls were quite dull, with good heavy kind around \$9 to \$9.15. Bologna brought \$9 to \$9.50, mainly one carload at \$8.10.

Prime fat steers \$12 to \$13.25
Choice steers, 1,200 lbs. or over 12 75¢ to 12 50¢
Good to choice, do. 12 25¢ to 12 50¢
Fair to good, do. 11 50¢ to 12 00¢
Plain heavy steers 11 50¢ to 12 00¢
Choice handy-weight steers 12 75¢ to 12 50¢
Good butcher steers, 1,000 to 1,150 lbs. 12 25¢ to 12 50¢
Fair to good, do. 11 50¢ to 12 00¢
Ordinary to fair, do. 10 50¢ to 11 00¢
Common, do. 10 00¢ to 10 50¢
Good light butcher steers 11 25¢ to 11 50¢
Fair to good light steers 11 00¢ to 11 25¢
Common to medium, do. 10 50¢ to 11 00¢
Interior light steers 11 50¢ to 12 00¢
Feeder steers 9 00¢ to 9 50¢
Stockers 11 00¢ to 11 50¢
Choice fat heifers 10 50¢ to 11 00¢
Fair to good heifers 9 75¢ to 10 25¢
Common to fair heifers 9 00¢ to 9 50¢
Choice fat cows 7 50¢ to 8 00¢
Good to choice fat cows 8 25¢ to 8 50¢
Fair to good cows 7 50¢ to 8 00¢
Common to fair cows 6 50¢ to 7 00¢
Canners 4 25¢ to 4 50¢
Fresh cows, calf at side 5 00¢ to 5 50¢
Choice heavy bulls 7 50¢ to 8 00¢
Fair to good heavy bulls 6 50¢ to 7 00¢
Good handy bulls 5 50¢ to 6 00¢
Fair to good bulls 5 00¢ to 5 50¢
Common to fair bulls 4 50¢ to 5 00¢
Interior bulls 3 50¢ to 4 00¢

Hogs

Monday's supply was light, only 25 to 30 carloads. The market was generally steady with last week's close. Sorted handy-weights going at \$11. Heavy hogs were dull at \$10.50 to \$11.10, while heavy mixed ranges from \$11.25 to \$11.50, all depending on the number of weighty hogs in the lot. Light Yorkers brought \$11.25 to \$11.50, and pigs \$11, these figures representing outside prices, but good hogs of 150 or over went in with the handy weights. Sows ranged downward from \$9.50, with the going price for standard market quality.

Heavy mixed \$10.50 to \$11.00
Heavy Yorkers, 165-180 lbs. 11 00¢ to 11 25¢
Medium wts., 180-200 lbs. 11 00¢ to 11 25¢
Heavy Yorkers, 165-180 lbs. 11 00¢ to 11 25¢
Light Yorkers, 125-150 lbs. 10 75¢ to 11 00¢
Pigs, 90-110 lbs. 9 00¢ to 9 50¢
Roughs 5 00¢ to 5 50¢
Stags 5 00¢ to 5 50¢

Sheep and Lambs

Last week's market showed a little improvement, closing at \$11.50 for top wooled lambs. Monday about seven double lambs appeared, not a large supply, the market was a quarter or so higher. Best wooled lambs brought \$11.25, wethers and heavies out. Clipped lambs increasing in numbers and with favorable weather the bulk will be in that condition hereafter. A few choice clipped lambs brought \$11 per cwt., bulk of the offerings \$10.50 to \$10.75. Some thinish double lambs sold at \$7.50 and ordinary single lambs \$7.25 to \$7.50, fair class \$9 to \$10. A few wooled sheep moved on a \$7 basis while a clipped sheep brought \$6 per cwt., many sheep of top quality appeared.

Good to best wethers \$6.50 to \$7.00
Good mixed 5.50 to 6.00
Fair to good, do. 5.00 to 5.50
Common to fair 4.50 to 5.00
Interior sheep 3.50 to 4.00
Good to best lambs 10.00 to 10.50
Medium lambs 8.00 to 8.50
Culls and common 7.00 to 7.50
Heavy lambs 9.00 to 9.50
Clipped sheep 7.00 to 7.50
Clipped lambs 7.00 to 7.50

Calves

Monday's supply was around 600. Top veal calves brought \$15.50 per cwt. with seconds \$11 to \$13 mainly and thirds \$8 to \$10.

LANCASTER

Cattle

Lancaster, March 10.—Today's receipts amounted to 350 head. The market was new. Beef steers and yearlings were weak; other classes about steady. Good steers are quoted at \$12 to \$13, mediums at \$10 to \$11 and commons at \$8.50 to \$11. One hundred and fifty calves were offered on a steady market, top vealers going \$15.50.

Hogs

Six hundred head were on sale. The market was weak to a quarter lower. Best hogs in the 150-200-lb. class brought \$12.50.

Philadelphia Produce Quotations

PHILADELPHIA
Butter.—92 score, 37¢; 92 score, 36½¢; 91 score, 35½¢; 90 score, 35¼¢.
Eggs.—Graded nearby whites, 27¢ to 28¢; extra firsts, 28¢ to 29¢; western stock, 25¢ to 26¢.
Poultry.—Live, fowls, 26¢ to 32¢; chickens, 33¢; old roosters, 22¢ to 23¢; pigeons, pr. 25¢; ducks, 22¢ to 23¢; turkeys, 25¢ to 30¢.
Fruit.—APPLES, N. J. Md., Dela. & Pa., baskets, Yorks, \$1.75 to \$2; Grimes, \$1.50 to \$1.75; Romes, \$1.75 to \$2.25; Winesaps, \$2 to \$2.25.
Vegetables.—BEANS, Fla., bu. hmp., best, \$1.50 to \$1.55. BEETS, Pa. & N. J., bukt., 25¢ to 40¢. ONIONS, Ohio, yellow, bu. sack, \$1.50 to \$1.85. CARROTS, N. J., Pa., 4 bukt., 35¢ to 50¢. POTATOES, Pa., 4 bukt., \$2.50 to \$2.75. SWEET POTATOES, N. J., 4 bukt., 90¢ to \$1. MUSHROOMS, Pa., N. J. & Dela., 3-lb. bukt., \$6 to \$12.50. PARSNIPS, Pa. & N. J., 4 bukt., best, 50¢ to 65¢. RHUBARB, 4-lb. boxes, fancy, 90¢. SCALLIONS, 10 bunches, \$2 to \$2.50.

NEW YORK

Butter.—Creamery, higher than extras, 36¢; firsts, 33½¢ to 35½¢; seconds, 29½¢ to 31¢.
Eggs.—White, nearby, average extras, 28¢; extra firsts, 28½¢ to 29¢; mediums, 26¢ to 27¢.
Poultry.—Live, by freight, fowls, 32¢; roosters, 15¢; geese, 16¢; ducks, 22¢.

LANCASTER

Butter.—Country butter, 50¢ to 55¢; cream-butter, 45¢ to 50¢.
Eggs.—Fresh, 26¢ to 30¢.
Poultry.—Chickens, \$1.25 to \$1.50; springers, 75¢ to \$1.25 each; ducks, \$1.25 to \$1.50; turkeys, 25¢ to 30¢ each.
Fruit.—APPLES, 20¢ to 30¢ ¼ pk. CRANBERRIES, 25¢ per lb.
Vegetables.—ASPARAGUS, 20¢ to 25¢ per bunch. BEANS (string), 30¢ to 35¢ ¼ pk. BEANS (Lima), 35¢ to 40¢ pint. POTATOES, 10¢ to 15¢ bunch. BRUSSELS, 30¢ quart. CABBAGE, 10¢ to 20¢ bunch. CARROTS, 8¢ to 10¢ bunch. CAULIFLOWER, 25¢ to 45¢ head. CELERY, 10¢ to 20¢ bunch. CUCUMBERS, 8¢ to 10¢ each. EGGS, 20¢ to 30¢ each. ENDIVE, 50¢ to 100¢ head. LETTUCE, 10¢ to 20¢ head. MUSHROOMS, 25¢ to 30¢ per pt. box. ONIONS, 20¢ to 30¢ ¼ pk. ONIONS (green), 10¢ bunch. POTATOES (old), 15¢ to 20¢ (new), 30¢ to 35¢ ¼ pk. PEAS, 17¢ to 20¢ bu. POTATOES (sweet), 10¢ to 15¢ peck. PEPPERS, 60¢ each. RADISSHES, 10¢ bunch. PEAS, 30¢ to 35¢ ¼ pk. SPINACH, 15¢ to 18¢ ¼ pk. TOMATOES, 25¢ to 30¢ pint box. TURNIPS, 10¢ pk.

YORK

Butter.—Country, 45¢ to 50¢; separator, 50¢ to 55¢.
Eggs.—Fresh, 26¢ to 28¢.
Poultry.—Hens, live, 28¢ to 32¢ per lb.; roosters, 15¢ to 20¢; geese, 16¢; ducks, 22¢ to 23¢.
Fruit.—APPLES, 13¢ to 30¢ ¼ pk. Stay-outside prices, but good hogs of 150 or over went in with the handy weights. Sows ranged downward from \$9.50, with the going price for standard market quality.

Heavy mixed \$10.50 to \$11.00
Heavy Yorkers, 165-180 lbs. 11 00¢ to 11 25¢
Medium wts., 180-200 lbs. 11 00¢ to 11 25¢
Heavy Yorkers, 165-180 lbs. 11 00¢ to 11 25¢
Light Yorkers, 125-150 lbs. 10 75¢ to 11 00¢
Pigs, 90-110 lbs. 9 00¢ to 9 50¢
Roughs 5 00¢ to 5 50¢
Stags 5 00¢ to 5 50¢

Pittsburgh

Butter.—Extra, firsts, 25¢ to 25½¢; nearby whites, 25½¢ to 26¢.
Eggs.—Live hens, heavy, 28¢ to 29¢; Leghorns, 27¢; old roosters, 15¢; geese, 16¢; ducks, 22¢ to 23¢; pigeons, 40¢ to 50¢ per cwt.

FEED MARKET

The following quotations are for transport nearby shipment March 7, according to the U. S. Bureau of Agricultural Economics. They show the approximate price of feed per ton (all in 100-lb. sacks) grain per bushel in carlots arrival basis delivered on track at Philadelphia and Seaton rate points:
No. 1 white oats, 51¢; No. 2, yellow, 48¢.
No. 3 white oats, 47¢; No. 4, yellow, 44¢.
No. 1 white oats, 51¢; No. 2, yellow, 48¢.
No. 3 white oats, 47¢; No. 4, yellow, 44¢.

HAY AND STRAW

Philadelphia quotations.—No. 2 timothy, No. 3 timothy, \$15.50; sample hay, No. 1 mixed clover, \$18; No. 2 mixed clover, \$15.50.
1 straight vey, \$18; No. 1 wheat, \$12.50.

CHICAGO CASH GRAIN

Chicago, Ill., March 10.—The following prices ruled here today: No. 2 hard red winter wheat, \$1.06½; No. 3 yellow corn, 80¢; No. 2 white oats, 41¢ to 41½¢.



Mr. H. O. Elliott of Euclid, Pa., (center) who says: "My potatoes grown with 'AA QUALITY' Fertilizer yielded 300 bu. per acre this year—200 bu. more than most growers in this locality obtained."

POTATO YIELD TREBLED

Gets \$380 Extra Cash per Acre

SOME folks say all fertilizers of the same chemical analysis produce about the same results. But you can't fool a potato plant that way. The crop quickly detects the superior crop-producing power of "AA QUALITY" Fertilizers... and registers this important difference in terms of bigger yields, better crops... and increased farm profits. These facts supplied by Mr. H. O. Elliott, Euclid, Butler Co., Pa., are typical of hundreds of crops which prove the profit-increasing power of "AA QUALITY" Fertilizers:

"This year I used 650 lbs. of 'AA QUALITY' Fertilizer per acre on potatoes, and am most pleased with the results. My crop yielded 300 bu. per acre—or about 200 bu. more per acre

than most growers in this locality obtained.

"Fifteen years ago, when I began farming, I was fortunate enough to use 'AA QUALITY' Fertilizer. It produced a splendid crop that year, and it has been equally satisfactory every year since. In all these years I have carefully observed the crops grown with other brands of fertilizer, and am convinced that 'AA QUALITY' Fertilizers are far superior as crop producers to any that are used in my section."

Mr. Elliott sold his potatoes for \$1.90 per bushel, so his 200-bushel-per-acre increase in yield meant \$380 extra cash per acre.

40 Tons More Ensilage per Acre

The same kind of results are reported on all crops. For instance, Mr. Peter Chapple, of Malone, Franklin Co., N. Y., got a yield of 50 tons of ensilage corn per acre. The average in his locality was 8 to 10 tons. Mr. Chapple wrote, on October 7, 1929: "Good seed, careful cultivation and 'AA QUALITY' Fertilizer did the trick. By careful comparison I can positively say 'AA QUALITY' goods give me at least twice the yields I get with other makes of fertilizer."

Regardless of the kind of crops you grow, you will be money ahead at harvest time if you use "AA QUALITY" Fertilizers.

Try "AA QUALITY" Fertilizers this year. Your nearby dealer is ready to serve you. See him this week.

"AA QUALITY" Fertilizers



Manufactured only by
The AMERICAN AGRICULTURAL CHEMICAL CO.
Baltimore, Md. Buffalo, N. Y. New York, N. Y.

Every dollar you save in your purchases is a dollar added to the profits of your farm.

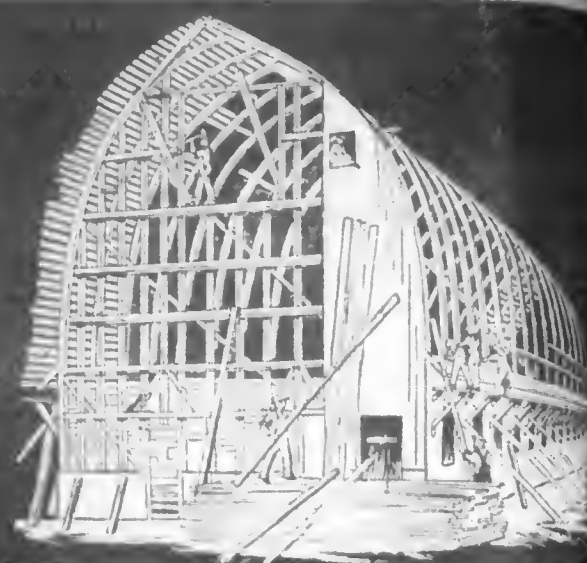
Every dollar spent for unsatisfactory merchandise is a dollar added to your costs. Read the advertisements and be guided by them.

ANSWER THEM and say you saw their advertisement in the Pennsylvania Farmer.



DON'T

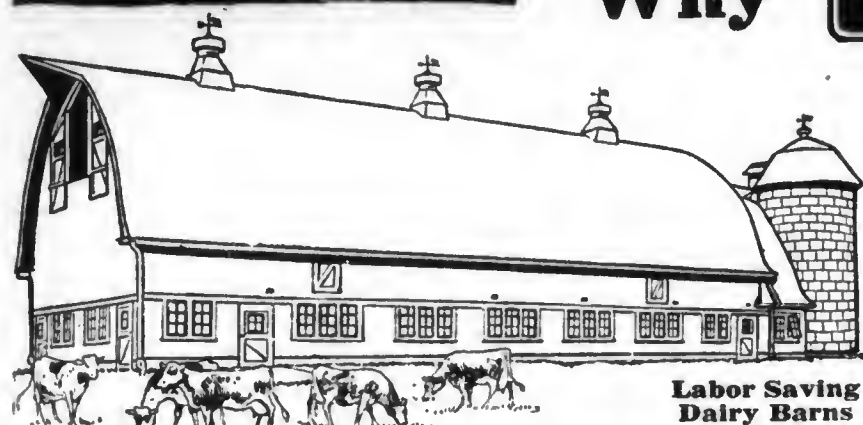
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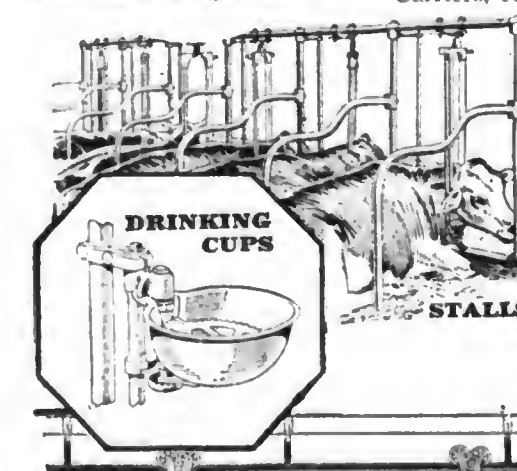
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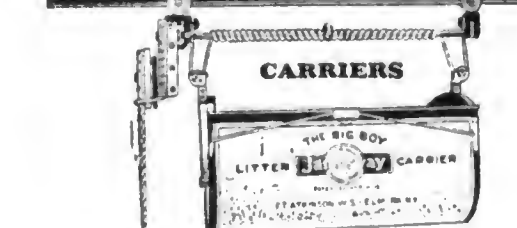


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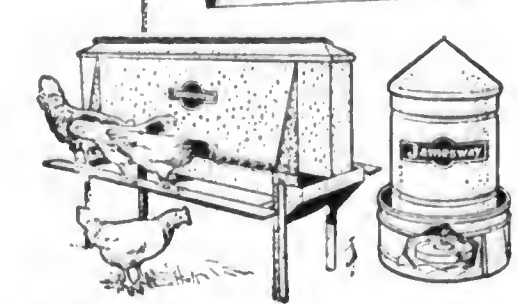


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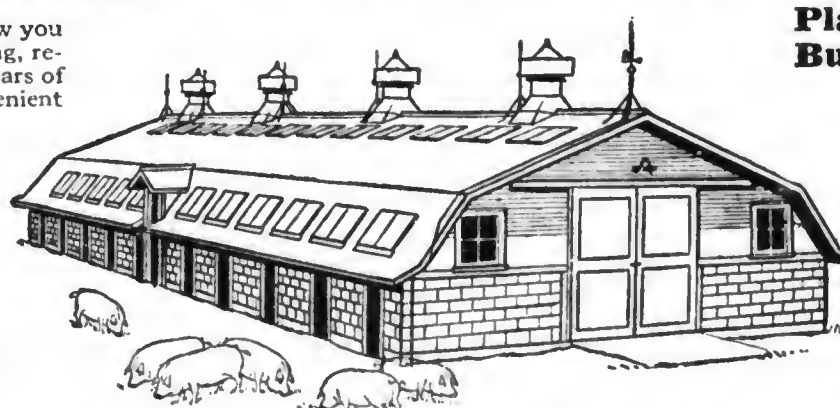
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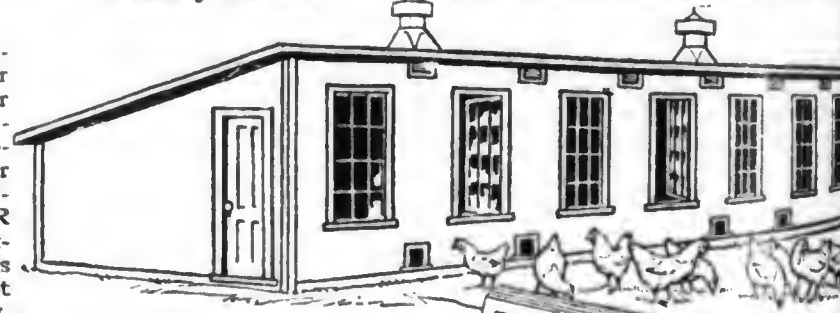
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March 22, 1930



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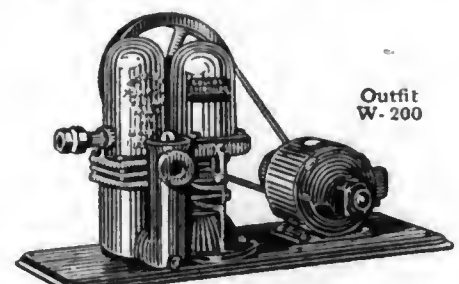
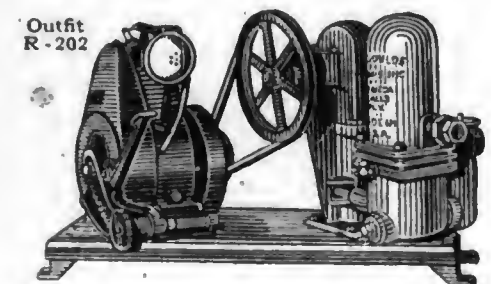
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Farm Facts and Fancies

By ALVA AGEE

OF course there is ground for criticism of that 3-10-6 formula for a fertilizer to be used on thin soils in our eastern country. There is no claim that the suggestion made on this page a few weeks ago has any value for the man who has been testing his fields and working out their needs. We have in mind the hundreds of thousands of acres in farms of readers who have made no careful tests but do know that they want to lift the land into a productive class and asks, "Where do I go from here?"

The answer I made was that the chances are that, if the soil has half-fair physical condition, it will make good returns from a fertilizer in which the phosphoric acid is three times as great as the nitrogen, or a little more, and the potash is two times as much. Stating the case differently, when something is to be tried and there is no certainty that these ratios are the best, they do make the safest starting point I know of. The land is pretty apt to respond profitably. The question in mind is ratios, and the percentages named years ago may well be higher today when we have richer materials to go into fertilizers. In that case less per acre can be used.

Later On

Having tried a combination of this sort, and I hope profitably, the next thing is to learn whether any change in it can be made with advantage. A reduction could not well be in the nitrogen until legumes or manure add to the soil supply. It could not well be in the phosphoric acid in the case of eastern land because nearly always it is deficient. A study of some experiment station results shows that available potash may be in sufficient supply in our heavier soils even when they are poor, but that later on potash pays its way and adds a profit.

The station plats I mentioned indicated at first that phosphoric acid, lime and nitrogen gave the answer, but as time has come along we find more emphasis put on the need of potash in the fertilizer. Quite possibly it would work out that way in the case of the land we are considering, but that we do not know, and I should risk the investment in potash on the field I wanted to crop, and at the same time begin a test to make sure it is essential. As I have said, continued cropping brings the use of potash into more prominence.

Varying Soil Needs

"Effective systems of soil treatment for a particular field or soil type change from time to time." That is the statement of the Illinois Experiment Station after "careful investigation of various systems of soil treatment for more than twenty years on the Illinois soil experiment fields."

The "rough-and-ready" starting point suggested for our readers who are not content to let a field remain a burden on them is only a starting point. Not only that, but if they knew exactly what to use today it should be modified later on. As nitrogen grows cheaper, which is probable, it can be used more freely for standard crops that cannot make as much return on the investment as vegetables do. As we make surer of good seed, disease control and the best culture, we safely increase the amount of fertilizer risked on a crop. This is aside from the actual soil changes to which the station referred.

Organic Nitrogen

It is the wrong time of the year to talk about fall plowing but some results of drainage water studies made by the Illinois Station bear indirectly on that practice and helped to clear up my thinking. We usually talk about the safety of plowing a soil

down in the late fall provided the soil is pretty well frost-locked during winter. That is true enough, of course, but these station tests show that the latitude of the northern half of Illinois the organic nitrogen is non-leachable during the six months from October to March inclusive. The nitrifying bacteria that convert organic nitrogen into a soluble form are inactive at the soil temperatures those months. Very little nitrate was found in the drainage water, the loss of potash and lime was seemingly checked.

Our Labor Problem

Americans do not take kindly to back-breaking jobs. We have had much discussion of the situation of Mexicans to take care of labor needs of the ranches growing vegetables, fruits, cotton, etc., in southwestern states. Tens of thousands are needed, and producers couldn't go along at half its pace without them. The South, the negro, and would be strained without him. All over the country and especially in the East, we have an immense number of people of foreign birth who are doing much of the hard work.

The Southwest wonders if it has its development hampered because it did not attract a sufficient number before immigration laws came strict. I am not arguing the question at all, but stating the fact. I do think, however, that we are more danger from people of more tendencies who try to promote themselves than we are from those who cross the border to work on ranches. Our relations to other peoples, political and commercial, are a continuing puzzle to me.

Unemployment

Much is being made of present unemployment. A lot of it exists, all of us have our sympathy stirred by any man who needs work, and it cannot get it. Doubtless employment will grow less as spring activities are in full blast, some economists I value say matters will grow better industrially throughout the year.

But the figures of unemployment broadcasted by some critics of government are not impressive. I assumed that every idle person was to work, and one would reckon that his limited observation that there must be a great host who do not work. If their number was substantial, we should have a fair picture of conditions. The chances are that demand for labor will increase now on. Our industries are trying to mend matters as fast as possible, criticism gets us nowhere. We are a panic of sorts, and are recovering much faster than usual.

Lettuce

LETTUCE is decidedly a cool season crop. Plant it early in the spring as soon as the ground can be worked. Leaf lettuce is a sure spring crop, than head lettuce. Prizehead, in my opinion, is a leaf lettuce. It is very good one for the home garden. The leaves show a touch of red in warm weather comes early the leaves may be used for leaf lettuce. However, if they fail to head. The chance of success are good if you start plants under glass. Use May King or amaranth, two early-heading varieties. Lettuce rows are spaced 12 inches for hand cultivation. This is for the plants begin to crowd another. Leaf lettuce may be planted at first to four-inch spacing. Every other plant should be used. Head lettuce needs ten inches more or less, between plants.

"I have used Pratt's exclusively in feeding my stock and think we've achieved wonderful results. One of my pullets hatched April 11th laid its first egg August 23rd, four months and 12 days old. She is still performing. Here's her record to date: August 23rd to 31st, 7 eggs; September, 2 eggs; October 1st to 10th, 2 eggs. I also have Columbia Rock pullets laying at an early age. I used no other feeds than Pratt's."

Oscar D. Reese
Emmaus, Pa.



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1 & 3/4 oz.



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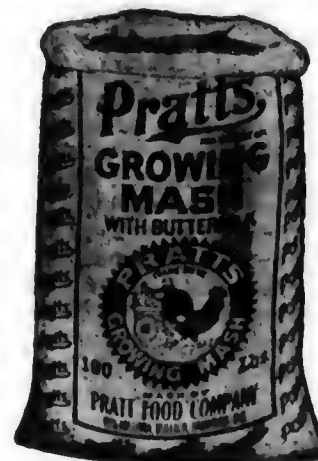
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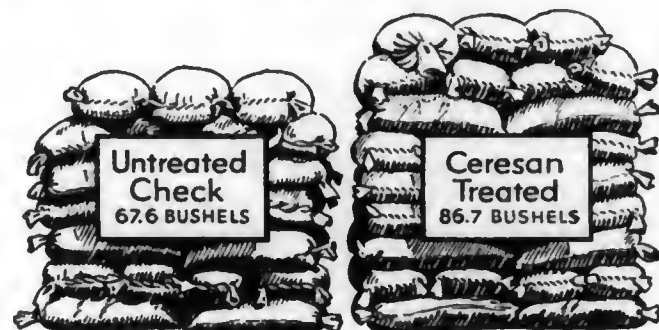
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The easiest way to obtain a bigger oats yield without increasing your present acreage is to prevent smut damage by using a safe seed treatment.

Many tests have proved that this is true. The Illinois Agricultural Experiment Station reported that dust treatment of smutty Big 4 seed oats increased the yield per acre from 67.6 bushels for the untreated seed to 86.7 bushels for the treated—a difference of 19.1 bushels. Smutty 60-Day oats treated with the same dust disinfectant, yielded 13.8 more bushels per acre than the untreated seed oats.

The dust disinfectant that produced these profitable yield increases and gave perfect smut control was Du Bay Ceresan. It is always safe to seed oats; deadly only to seed-borne disease organisms that reduce germination and injure the crop.

Ceresan Prevents Smut Losses

In 1928, Iowa alone lost 18,000,000 bushels of oats because of smut. In 1929, state and federal authorities report smut losses were unusually severe in Iowa, Kansas, Minnesota, Missouri and Wisconsin.

Such losses now can be prevented by Ceresan seed treatment. Wisconsin Circular 133 reports good control of oats smut in that state with Ceresan. According to the August, 1929 *Plant Disease Reporter*, Ceresan gave "good control" of oats smut in Iowa and "excellent control" in Kansas.



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Dust Disinfectant for Seed Grains and Cotton

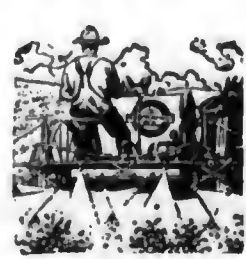
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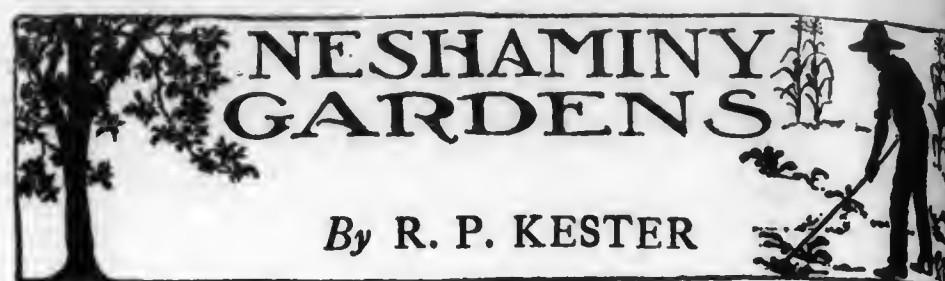
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By R. P. KESTER

I HAVE had some inquiries lately asking where we bought our baby chicks. My reports of our unusual success in raising baby chicks to maturity have induced others to want the name of the hatchery. Some of the letters say very complimentary things about hatcheries they have dealt with.

Now let us examine the question dispassionately. While our success was unusual, almost phenomenal, it must be remembered that it was not all due to the stock. Those chicks had the very best of attention from the time they first went under the hover on through their growing period. That care included the feeding of a first-class ration made by a reliable manufacturing company. It included scrupulous care of house and brooder. The chicks were never allowed to become chilled nor overheated. These things must be credited with a big percentage of the success, and the lack of them accounts for the failures experienced by many chicken raisers.

No doubt there are some dishonest hatcherymen. There are dishonest men in every business. But running a hatchery is a precarious business. No one can foretell at the beginning of the season how eggs will hatch. There is considerable expense in running incubators, and it is natural to want to keep all the money and fill all the orders that come in. Many people fail to send in their order until near the time they actually want the chicks, and it often happens that all, or even more, are booked than can possibly be shipped at a given time. Of course, the right method would be to send back the money if a definite request cannot be complied with. But hatcherymen are human, and many times the money is kept until chicks can be sent from a later hatch.

Use on All Seed Grains

Ceresan destroys seed-borne disease organisms on many other seed grains. The January, 1929 issue of *Phytopathology* says: "... Ceresan has given satisfactory results in controlling stinking smut of wheat, covered smut and stripe of barley, loose smut of Tennessee winter barley, the smuts of oats, and covered kernel smut of sorghum." It also prevents disease losses on rye, millet and cotton.

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A woman writer in Chester county wants to know how to manage land that one does not desire to farm in cultivated crops so that it will not deteriorate through lack of use. Part of the land is in pasture, but other fields are full of weeds due to failure of grass seeding.

If the land is adapted to alfalfa, that is, if it is not wet and contains plenty of lime, the best plan would be to prepare the soil well and seed heavily to alfalfa in August. If the land is not such as will erode from summer rains it would be a good plan to plow it early in the summer and keep it harrowed so as to kill the weeds as they germinate. I would advise this lady, also, to seek the advice of the county agent of her county. I know him to be able and willing to advise.

Farmers in this section of the country seem to have little trouble this spring in engaging farm help. Men are seeking employment in every line. I passed two or three employment agencies recently and there was a crowd of men before the doors of each of them. It cannot be denied that the unemployment situation is acute here and near the big cities. Relief is expected in the shape of revived industry within the next few weeks, but in the meantime people must live somehow. I see that one industrial leader advises paying higher wages and reducing prices. But when times improve it is to be hoped that many people will have imbibed some of the wisdom to be gleaned by listening to "Amos 'n Andy." Amos, in spite of his lack of pretension, has some good horse sense that would do anyone some good.

Friendly Talks

By Edgar L. Vincent

HOW are you doing your fighting? This morning one of the radio entertainers dropped a word that has been in my mind ever since. He said there no manure was applied. This group of tests a good many folks were fighting their backs, but they were fighting. Fighting on their backs. Practically everybody that I know of has been fighting on his hands. May be, but of one kind or it may be of another, but we are all bound to make this fight, and really we are bound to make it the best fight we can.

But fighting on our backs. That is something different, and it means a harder fight and a longer fight than for any of the rest of us. And I was thinking this: Ought not those of us who are able to stand on our feet and wage our battle in a manly, forceful square way be supremely happy and thankful, too, that we are not clear down flat on our backs and doomed to defend ourselves from that position or give up beaten?

Most of us are good and strong in our bodies. How is it in our hearts? Are we full of courage and go every morning when we get up and we are sound and able-bodied and we are sick and down and out? It is so many of us and complaint of our bodies. Much of our complaining is absolutely without cause, for although we have a tough job on our hands a thousand more things are in our favor than are against us. Things always come better for the man who keeps cheerful and holds right on till the sun goes down. It is then that crows sing given out and not in the middle of the afternoon.

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Vol. 102

Pittsburgh, Pa., March 22, 1930

No. 12



A field of Potter county disease-free seed potatoes. This picture was taken on the farm of M. L. VanWegen.

Potato Fertilization

By J. B. R. DICKEY

three, averaging a decided loss, while 12 per cent averaged 13 bushels less than eight per cent for the three years.

With manure and only 800 pounds of fertilizer in Cambria county, ten per cent compared to eight gave a loss one year and gain the other, the average gain being only two bushels. In Mercer county with manure, ten per cent gave a decided loss two years and no gain the third year as compared to eight per cent. Twelve per cent gave a further loss two years out of the three.

A 1-2-2 Ratio Seems Best

Just why the higher percentages of phosphoric acid reduced the yields so frequently we do not clearly understand, but the evidence seems pretty plain that even with manure and moderate amounts of fertilizer eight per cent is about enough and that more may be dangerous.

In regard to potash on the Lehigh county shale the average for six years shows a regular and very profitable increase up to seven per cent. Nine per cent compared to seven per cent gave an average increase of only four bushels and in two years there was a decided loss from the nine per cent application.

On the Lehigh limestone the increases from potash were still more marked up to seven per cent. In two years there was quite profitable increase in going from seven per cent to nine per cent. The other year results were inconsistent.

Last year, the test on the limestone soil showed an increase from seven per cent to nine per cent of 33 bushels. This also happened in Mercer county with an increase of 25 bushels but showed a loss of 13 bushels in Cambria county. There was no test on the Lehigh shale last year, but in other dry summers we have noticed that the high potash plots stayed green longer and made a larger yield.

In all three of the past years' tests in Cambria county nine per cent gave a loss compared to seven per cent, averaging 24 bushels. In 1927 and 1928 in Mercer county the average loss from nine per cent compared to seven per cent was 25 bushels, this with only 800 pounds of fertilizer in both cases, but with manure.

Summarizing the above results it would seem that a 1-2-2 ratio, such as a 4-8-8, was about the best under all conditions tried. Up to these percentages was usually profitable but above these we find a loss in yield in quite a few cases. With manure three per cent of ammonia may be as much as pays, and it apparently rarely pays to go above seven per cent of potash. Without ma-

nure a little more potash might pay, but a 4-8-7 is apparently not far wrong wherever tried.

We also have some evidence as to the most profitable amount per acre. In six years on the Lehigh shale without manure the average yield for 900 pounds of 4-8-5 was 346 bushels per acre, from 1,200 pounds 355 bushels and from 1,500 pounds 355 bushels. With 300 pounds of fertilizer costing about \$5 the nine-bushel increase from 900 to 1,200 pounds was not particularly profitable unless potatoes were a good price, while the increase from 1,200 to 1,500 was clearly made at a loss, the yield was decidedly less two years out of the six. On the limestone soil there was also a decrease in yield from applications above 900 pounds two years out of three though a 4-12-4 mixture was used here, which may have supplied too much phosphoric acid.

In Cambria county with manure the results show increases up as high as 1,500 pounds, but the figures are rather inconsistent and here again a 4-12-4 ratio was used which may have given insufficient potash. In Mercer county two years' tests show 900 the best one year and 1,200 the other with 1,500 only one bushel above 900 one year and eight bushels below 900 the other. According to these tests large amounts have seldom proved profitable and not infrequently have reduced yield. With the clover sods and heavier soils which we use the amounts required in other states seem unnecessary.

"Quality" in a potato fertilizer is a very questionable term. Source of nitrogen was formerly considered important, but tests here and elsewhere do not show any particular superiority of one source or combination of sources over another.

Plant Food for Corn

IN the March 1st Pennsylvania Farmer H. D. gives his experience with 20 per cent phosphate on corn. No doubt his 350 pounds of superphosphate benefited his corn and hastened its maturity as he says, but I am wondering if a smaller application of a 2-12-4 or a 4-8-6 fertilizer would not have given him a larger and stronger stalk with a larger ear that would have matured just as early.

The 350 pounds per acre of 20 per cent superphosphate would have furnished him 70 pounds of available phosphoric acid, enough to grow approximately 100 bushels of corn per acre. This crop would require the soil to furnish more than one hundred pounds of nitrogen and about the same amount of potash. The soil which could supply that much of both of these foods could also be trusted to furnish some phosphoric acid.

Most crops are in need of some available nitrogen in the early part of the season and I find that they respond readily to a light application of these plant foods. Phosphoric acid with stable manure makes a well balanced plant food. I find that it is a much better fertilizer for corn than superphosphate alone.

I also find that stable manure applied to the soil direct from the stalls during the winter season, as Thomas Jones recommends in the same issue of the paper, is preferable to allowing it to lie about the stable to rot until spring.

The well rotted manure is all right as a fertilizer, as H. S. Baker says, but it should rot in the field rather than in the stable or the shed. The field is better prepared to care for the manure especially if it is a soil than the stable is. A. J. Legg

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PENNSYLVANIA STOCKMAN and FARMER

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FARM HELP

FOR the first time in many years this month has brought us no letters from farmers who want farm help. We have had a few letters from men who want work on the farm but none from farmers who want men. Has a combination of machinery and different conditions in other industries solved the farm labor problem? Official reports indicate that wages of farm labor are lower, which is evidence of a sufficient supply.

STORAGE EGGS

THOSE who stored eggs in 1928 lost heavily and that was not good for the spring market of 1929. But the eggs stored last spring have made money, so this spring's surplus will come to a market not adversely affected by the past season's business. The storage of eggs is a highly speculative operation and producers should probably leave it to the speculators; but they are interested in its outcome, for the market for the spring surplus is affected by it.

FROM LIFE

AN immigrant to this country became a successful farmer and feeder of livestock. He prospered so much that he owned many acres, some near home and some in a newer country. His neighbors honored him by electing him to office. The President of the United States honored him by appointment for a special service in the country from which he had fled in his youth. But with all his successes he was unhappy and died broken in spirit and in fortune. For his son—but let us leave the rest to the reader's knowledge of humanity.

EARLY LAMBS

EARLY lambs are those which come to market before the first of July. Official reports indicate that this year's early crop is larger than last year's and in better condition. Tennessee, Kentucky and the Virginias produce the bulk of the crop in eastern territory, and they report as many or more lambs and better ones. Prices are likely to prove disappointing in consonance with prices for yearlings and because a larger proportion will be marketed than usual, fewer ewe lambs being saved for future breeding. In spite of such occasional depressions the business will continue in those regions which have developed it, for no other line of animal industry offers any better returns.

PENNSYLVANIA FARMER

March 22, 1930

A LABOR QUESTION

THAT there is much unemployment in our cities is beyond question. That there is a serious shortage of labor in these same cities appears to be just as certain. The trouble is that the surplus of labor is industrial and masculine while the shortage is domestic and feminine. While many businesses employing men hang out signs to say that no help is wanted many homes are advertising for domestic help. All this suggests the possibility of some readjustment by training men for housework. In other countries men are employed at all kinds of domestic work and do it well. If the women of this country prefer to work in business, and so create a surplus of labor there and a deficiency in homes, why should not some of the men take over a part of the home work? A good cook is a good cook anywhere and can usually command fair wages. Why not more men in this time-honored profession which so many women have deserted? We are not attempting any profound solution of labor problems of either sort, but we are raising a few questions which may be regarded as the reader chooses. Why not raise them?

SAIL ON!

A READER asks this question, which is being discussed in some granges and clubs: "Is there further need for general farm organizations now that the Federal Farm Board is fostering organizations for cooperative marketing?"

We cannot see that the existence of the Federal Farm Board should interfere with the service of farmers' organizations or diminish their usefulness. Even if the Board or some of its agencies did take over a part of the work of an existing organization we should favor the continuance of that organization. For the Board has yet to run two gauntlets and may not get through unscathed or at all. One of these is successful operation of national or large-scale cooperative marketing. The ability of the Board and its agencies to carry on this work economically has not been proved and it can be determined only by experience. The other gauntlet is a legal one, for the courts have not yet passed on the Agricultural Marketing Act or the things it authorizes. The whole thing may be declared unconstitutional when tested, though we do not say that it will be. The functions of the Board are commercial and on a national scale. Organizations with other than commercial functions, and other than national marketing interests, cannot be supplanted by the Board or any agency thereof. So let our useful organizations sail on—they have no reason to do anything else.

A REAL PROBLEM

TAXES must be paid in cash. Farmers must sell something to get the necessary cash. There is nothing new or strange in these statements—they have always been true. But with declining prices for principal farm products more bushels of grain, pounds of meat, gallons of milk or dozens of eggs must be sold to get enough dollars to pay the taxes. The necessity of having these bushels, pounds or gallons to sell will prevent the reduction of production which looks so easy to the theorist but looks different to the man who must pay taxes and other fixed charges out of production.

Something should be done about all this—but what? The answer is to lower taxes—but how? Many suggestions are made, but some of them involve a revolution in taxation and are therefore not to be considered as possible remedies now or soon. Taxpayers' leagues, to study local taxation and expenditures, are suggested and are doing good where at work. Cheaper collection of taxes is proposed, so is limitation of debt of minor units.

All such things, worthy enough in themselves, are palliatives and not remedies. There is any remedy, so far as agriculture concerned, it must come in some change in our system whereby property bears a less proportion of the burden and earnings profits a greater. Such a change may be possible without the delay incident to constitutional amendments. For what agriculture needs is early action, not theories that cannot work without a revolution in our ideas. Pennsylvania agriculture has created a committee to study this problem and is now at work. It should have the help of concerned in agriculture. We pledge it for discussion whenever it is ready for the

A HUNDRED MILLIONS

LAST week the Federal Farm Board made public a letter in which its chairman said: "The present operations of the Stabilization Corporation will undoubtedly result in their having upwards of 100,000,000 bushels of wheat on hand at the close of the present season." The more wheat the Corporation buys the worse for the market hereafter, in addition to the burden of such an accumulation in the hands of one agency is the certainty attending the disposal of it. Buying of millions of bushels by this agency may "relieve" the market temporarily; it may hang a dead weight on it hereafter and a potential demoralizer as well. Let repeat for the twentieth time that no market can be stabilized by injecting into it more certainties, and the uncertainties attending the wheat market increase as the Corporation's pile grows. Up to this time the effect of official "stabilization" may be summarized as more uncertainty and greater instability.

CONFIDENCE

THE Secretary of the American Association of Creamery Butter Manufacturers, Mr. W. F. Jensen, has done a lot of effective work to promote the use of butter. He is discouraged by the recent over-production which caused butter to sell for less than by the competition of butter substitutes or any other conditions, for he says: "Butter as a product is so vital a part of the economic structure of our country, and its inherent qualities in flavor, nutrition and health-giving properties are so important, that it may take for granted that the industry will not be destroyed or seriously disturbed any length of time. In view of this it seems to me that it would be better for the manufacturers of so-called butter substitutes to allow themselves to forget the everlasting endeavor to imitate the appearance of butter pursued by some of them (not all by any means) and sell their product for just what it is, making up their minds that it is the way should be made and sold in order to maintain a permanent position among the food products of our country."

Having said essentially the same thing many a time it is naturally a pleasure to quote this acknowledged representative of the dairy industry. We well remember according to the utterances of the alarm-butter was to be driven off the market; since then it has sold for more than it did before there were any substitutes; the cows that produce it have sold for five times as much. So far as butter substitutes are concerned we had the pleasure of telling the manufacturers years ago that they had started right they could have a market for their products regardless of price. They wasted years trying to counter a known product instead of trying to establish their own—and then were compelled to do what they should have done at the start. Green, pink, white or any other color have been established just as yellow; but the makers of butter substitutes could never be made to see it.

March 22, 1930

NEW JERSEY'S legislators, often accused of not keeping pace with agricultural progress, proved themselves otherwise when they defeated by a vote of 31 to 6 a resolution introduced requesting investigation of the merits of tuberculin tests as applied to bovine animals. The supporters of this bill also ask an appropriation of \$10,000 from the state to carry on these investigations.

Such a request, if made twenty years ago, might have had many staunch supporters, but today it might be likened to Rip Van Winkle's awakening. On March 1st, 51.37 per cent of New Jersey's cattle population of 156,189 were under supervision for the control and eradication of bovine tuberculosis. This comprised 89,683 cattle in 9,902 herds. During the present fiscal year 8,308 cattle in 991 herds have been given the initial test.

When we consider that all requests for testing are voluntary on the part of herd owners, it would seem that rapid progress is being made in eradicating this disease in the state.

EACH year a larger percentage of New Jersey's perishable products is moving to market by motor truck. During the past six months of 1929, truck shipments into the Newark, N. J., market exceeded the amount for the same period of 1928 by nearly the equivalent of 1,000 carloads. During August and September truck receipts exceeded rail supplies while in July they were about equal. Most of the truck shipments originated in New Jersey, and tomatoes as the leading commodity, but during May and June berries were received by truck from as far south as North Carolina.

The New Jersey Bureau of Markets further summarizes the Newark market situation during the past year as follows:

"More cars of fresh fruits and vegetables were reported unloaded and sold on the Newark market during 1929 than in any previous year. The total railroad unloads in 1929 were 184 carloads and included 43 commodities, originating in 33 states, not including Canada and Mexico. During the last eight months in 1929, truck receipts equalled 7,989 carloads, amounting for a total of 21,830 cars of produce handled on the Newark market, or the equivalent of 70 cars of produce for each business day.

"Fall receipts were heaviest during November and December. Unloads of potatoes in 1929 were 363 cars. Grapes were shipped in 1929 by 630 cars, but apples, cabbage and other vegetables were each about 300 cars heavy. Lettuce, celery, sweet potatoes, tomatoes and such unloads were about at 1928's figures. Shipments were received from 33 states during 1929, four less than in 1928. California originated 381 car loads or 381 less than in 1928, but was well ahead of New York or New Jersey which shipped about 1,600 cars each. Grapes were the leading commodity received from California while other vegetables led from New Jersey and potatoes from New York State."

WE also learn that the motor truck is a big factor in supplying the City of New York with fresh fruits and vegetables, especially from nearby truck farms. A total of 30,108 cars were reported on the Jobbing and Farmers' Markets during the past year. Most of the arrivals were from New Jersey and New York. New Jersey supplied 13,091 cars and New York State with Long Island accounted for 12,200 cars. Maryland was third with 1,347 cars, while Pennsylvania supplied 1,047 cars, most of which were mushrooms. There were 166 carloads, mostly berries, hauled from North Carolina.

The heaviest receipts were reported by the dealer on the Washington wholesale or jobbing market with a total of 16,374 cars. Wallabout was the leader of the two Farmers' Markets with 10,194 cars while Gansevoort reported receipts of 3,540 cars.

The following ten were the heaviest in volume of commodities reported during the year: Potatoes 2,073 cars, tomatoes 1,819, corn 1,786, beans 1,613, beans (snap and Limas) 1,566, apples 1,390, celery 1,285, strawberries 1,165 and peaches 1,098.

PENNSYLVANIA FARMER

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New Jersey Farm Comment

By G. W. HARRIS

FORTY or more outstanding 4-H club members in Maryland will attend the annual meeting of the All Stars at the University on March 22 and 23. Members of this organization are selected because of their service in club work and in their home communities. In Maryland members are elected at "4-H Club Week" held at the University each August.

There are similar organizations in Virginia, West Virginia and Rhode Island, and it is planned to form an All Star group in Massachusetts this summer.

THE \$100 scholarship offered by the Baltimore and Ohio Railroad to the Maryland 4-H Club boy whose achievements in 1929 were most outstanding was awarded to John H. Price, Jr., of Darlington, Harford county.

E. G. Jenkins, state boys' club agent, tells about John Price's (commonly known as Jack) career



A BRIGHT SPOT IN THE GARDEN

Early in the spring when the daffodils are the only other flowers blooming in my garden, my forsythia bush opens its buds to the sunlight and the bush is a mass of pure gold. As the flowers bloom and are gone before the leaves develop, there is not even a background of green leaves. The flowers last well, but when the leaves come out the birds find the bush an ideal place to locate their nests and hatch their young. Mine usually hides several nests each season.

The forsythia is easily started from slips or roots and grows rapidly with little care, except an occasional trimming. The long shoots should not be allowed to droop over and touch the ground, as they will take root. Those who are improving their gardens should have at least one forsythia, and they will have one bright spot in their garden which will prove a delight to all lovers of beauty.

in club work. Jack started in club work when he was eleven years old. That year he planted an old garden spot on his father's farm in potatoes and while this first venture did not prove so profitable, it did provide the necessary impetus which later on made this young club member successful. The next year he planted more potatoes and produced a sufficiently high quality product to win second prize at the Harford County Fair. The same year he was elected Vice-President of the local 4-H club.

In the spring of 1925 Jack joined his county garden club and enlarged his garden to include many more vegetables. The following year he was elected President of the Darlington 4-H club. Since that time Jack has taken a great deal of interest in purebred pigs and this year sold his sow and litter at a profit of \$55.

In addition to his club projects, Jack has been very successful in winning outside honors. He attended 4-H Club Week at the University of Maryland for a number of years and was one of two boys selected to represent this state at the second National 4-H Club Camp held in Washington, D. C. Last August he was also awarded a scholarship offered by the Southern Planter magazine.

TWENTY club calf records in Hunterdon county, the largest number ever reported in that county, were recorded in the month of February. Kenneth Smith made the State Honor Roll for the fifth consecutive month with his four and one-half year Holstein. This cow made 1,553 pounds of milk and 50.6 pounds of butterfat in the fifth month of her lactation.

PROFESSOR M. A. Blake, of the New Jersey Experiment Station, reports that the recent sub-normal temperatures have had no adverse attack on the birds of New Jersey No. 66, the new

peach seedling recently developed at the Station. This large white free-stone peach ripens the same season as Carman.

THE Camden farmers' market location is being changed from Wright street to a block between Second and Third streets under the Delaware river bridge. This new location makes an ideal place for such a market as there is no need for congestion and the space is sheltered by the bridge. The market will be well-lighted, an office for a market master will be constructed and a competent market master will have charge of the operations. An average of 85 farmers used this evening market last summer at its old location on Wright street.

CROP reports coming from Florida state that sixty per cent of the potato acreage at Hastings was hurt by frost on March 3-4. Other sections of the state suffered from frost but not to as large an extent. This frost will not affect the potato crop in that section other than to delay it from ten days to two weeks.

From Georgia north through the Carolinas and Virginia, reports show that potato planting proceeded under ideal weather and soil conditions and earlier than normal. With these states setting out their potato crop earlier than normal and with the Florida crop delayed, there will be a tendency for the early crop when it does start rolling to come to market in large quantities. Growers in the North still holding part of their last year's crop will do well to watch the movement of the new crop, for it will have its effect on the price of late potatoes during April and May.

PROSPECTS for good crops of peaches and apples in Chester and Delaware counties, Pa., were reported by the orchardists of this section attending the annual meeting of the Delaware-Chester Horticultural Association held at West Chester, Mar. 12. The meeting opened with a luncheon, following which the new officers for the coming year were elected as follows: President, Clarence Kemery; Vice President, John Romig; Secretary-Treasurer, J. R. Edgerton; additional members of the executive committee, C. P. Barnard and Thomas Crowell.

John Reuff opened the afternoon session with a discussion on Orchard Fertility. The need of humus in orchard soils was emphasized and the short sod rotation running through three or four years was recommended as most practical in keeping up the humus content.

Fruit worms, plum curculio, red spider and aphids are the insects most troublesome in this area, stated D. T. Ries, who then went on to explain methods of controlling them. R. S. Kirby laid particular stress upon controlling apple scab this year, for as he pointed out 45 per cent of the scab spores in southeastern Pennsylvania are now almost mature and only awaiting a warm rain to shoot.

FRUIT growers should make a careful examination of their trees previous to the spraying season in order to find out to what extent European red mite and aphid eggs are present.

The European red mite eggs are round, rusty red and so small that the individual eggs cannot be seen without a magnifying glass. They usually occur in masses resembling blotches of red pepper on the under side of the twigs and branches, usually where the bark is slightly rough or uneven. The clusters of eggs can be rather easily detected with the naked eye, although a low powered magnifying glass helps materially. If European red mite eggs are plentiful, one of the oil sprays should be used during the delayed dormant period or before the fruit buds show very much green color.

Aphis eggs are quite different from European red mite eggs in color, size and shape. They are shiny black, oval, and single eggs are large enough to be seen without the aid of a glass. Aphis eggs are most easily found on the one-year wood, usually close to a bud. If any eggs are found it usually means that enough are present in the orchard to justify the application of a spray mixture that will prevent them from hatching. Your county agricultural agent can give you the New Jersey Agricultural Experiment Station spraying recommendations for the control of both of these insect pests, as well as others that are found in New Jersey orchards.

Two Weeks of June in February

By C. L. WHITE

(Continued from last week.)

WE had a long refreshing sleep on the Steamship Evangeline, enroute from Miami to Havana. Then came breakfast and the business of getting landing cards, etc. We hurried out on deck to see Morro Castle and Havana harbor in the bright morning sunshine. The ship, docked; first to come aboard to greet us was Mr. Ernesto Sanchez, chief of Cuban Bureau of Plant Industry and his aide, Mr. Aguilar. Later Mr. Sanchez delivered a brief address of welcome in the name of the Secretary of Agriculture, reminding us that Cubans have not forgotten America's assistance during the war with Spain, and later through such men as Leonard Wood whose good works are much in evidence in Havana.

Only a short time was required to get our baggage through the Cuban customs and out to the waiting automobiles which took us to our hotel, the Alcazar, then on a tour around the city. The narrow streets of the old city, the beautiful public buildings, the ancient churches, homes and fortresses, the tropical vegetation of the countryside, the hospitality of the officials, the sound of Spanish on every hand—all made our stay in Havana an experience not to be forgotten.

It was easy to remember that we were no longer under the Stars and Stripes. There was a saloon on nearly every corner, but we saw no drunkenness, except among American tourists—not of our party. Some of us went to the races. We enjoyed shopping in stores which, like the saloons, had no outer walls or windows—nothing but iron shutters which are pulled down from the top at night.

We sampled Havana's night life, but felt somewhat out of place—especially at the National Casino, a magnificent Cuban Monte Carlo where nearly every one was in evening clothes and where tense, quiet men and women were gambling with what seemed like fortunes to most of us. Some of us saw a girl lose \$1,200 at roulette in a few minutes, and apparently think nothing of it.

Next morning Mr. Sanchez guided us out to the agricultural exposition being held by the province of Havana at General Machado. It was a fair which would put some of our own county fairs to shame in quality of products and methods of staging and management. We couldn't judge the strange tropical fruits and vegetables, but it would be hard to find better poultry anywhere. And after so much Spanish it was a pleasure to hear roosters crow in a language we could understand. There were well-bred Holsteins and Guernseys, too, that looked like crows back home.

In the afternoon we had another country automobile trip, with a stop at the beautiful Tropical

Gardens and a visit to a farm where we saw practically every plant that grows on the island of Cuba. There we learned that banana bunches hanging as we always see them are really bottom end up. We saw a cock fight, with the game cocks wearing "boxing gloves" over their spurs; we learned how the natives climb the smooth trunks of the great royal palm trees like those pictured on the cover page last week, and we discovered that no one knows how good pineapple is until he has eaten a slab of the fresh fruit "out of hand" right off the ice.

Evening saw us back on board ship. This time it was the Iroquois, even larger and finer than the Evangeline. Another good rest and in the morning we learned to complain, as everyone does, about the red tape of the United States immigration and



Homeward bound. We stop for water north of Palm Beach.

customs officials. There were many on the ship besides our party and some of them had the original idea of smuggling liquor in the pockets of coats carried over their arms. We watched these people passing into the cashier's office to pay their fines and say good bye to their bottles; the idea wasn't so original after all.

Our buses were at the docks and they rushed us to our special train where the faithful porters

and the few of our party who had remained in Miami were waiting. Breakfast was ready in the diner. As the last person stepped aboard we started, anxious to get away ahead of the Orange Blossom Special, the Seaboard's crack train. We succeeded, and ran ahead of "The Blossom" all the way north. The run to Washington was made in less than 29 hours from Miami.

There was "something doing" in every car on that homeward trip. As if the "home talent" in each car weren't enough, Mr. East and Mr. Magee organized a grand opera company in Car A and went up and down the length of the train giving concerts or something. Mr. East is agricultural agent of the Pennsylvania Railroad, but on this tour he was Master of Ceremonies, editor and pressman on the Tour Edition, and so on ad infinitum.

The first break in our "family" occurred at Savannah, Georgia, where Mr. and Mrs. McBride left our train. They were the kind of traveling companions one doesn't like to part with. Mr. McBride's activities as agricultural agent of the Seaboard and the many thoughtful attentions given by the men under him throughout Florida helped give us pleasant memories of the Sunshine State.

Thanks to our fast run from Florida we reached Washington at 2 p. m. Friday, four hours ahead of our original schedule and early enough to let nearly everyone get home the same day. Senator Capper met us between trains in Washington. As head of

the organization which sponsored the tour he was glad to see us return safely and in good spirits. Our final farewells had to be said hastily, for the two chartered cars from Harrisburg left Washington almost immediately on the Pennsylvania's fast train, The Spirit of St. Louis. Mr. Harris and the Philadelphia car went a few minutes later, while Mr. Phillips and a good section of our party stopped off in the

(Continued on page 29.)



Some of our party under moss hung oaks and palms at Silver Springs, Fla.

TOOTS did the best he could for Welby, who rarely spoke to him except to order him about, or complain of the result of the day's shooting. The man was a thorough game-hog, as he was a money-hog. He was particularly dissatisfied with the comparatively small bags of brant, a bird that stood high in his estimation as a table delicacy.

"If you're willing to make a longer trip we'll do better with 'em," said Toots. "The feed isn't right here, but yonder on the flats by Sutter's land there's any amount of eelgrass. That's what they like. They always tend

there." "It's your business to take me where I can get birds, isn't it?" said Welby disagreeably. "All right. We'll pack a tent and camp down here," replied Toots. "It's too far to go and come a day."

They set out early the next morning, while the town was still asleep and half obscured by the mist beginning to lift from the water. In cutting by the end of the Broad View pier—the big hotel had been re-opened by the Colonel's heirs—the

apple grazed the black-and-white can buoy that marked the Stinger's home mooring. Rose and had sailed south some weeks ago, the big man having received news of a bit of freight that might pick up. Toots had not seen much of lately, except at the store, where the attractive had of course been Mrs. Ham. Rose had been set by her action in going to work there. To it was a disconcerting assertion of independence and he blamed Toots for aiding and abetting

Sutter's Island loomed up ahead before the apple had covered many miles, a distinct mark of its heavy growth of pine, the other trees in the vicinity being virtually devoid of trees. Toots' goal was one of the blocks of high marsh

the eastward of Sutter's and nearer the flats were he proposed to gun. At one time there had been a number of pines on it, which had been killed by a fire. It was covered now with a dense growth of grass, but Toots knew he could find

dead wood to feed a camp-fire.

A mile or two from Sutter's they passed a little sharpie heading north. The man at its helm was then an "hullo" and a wave of the hand, to which Toots replied. It was Sutter's son, Jeremy.

"What you-all bound?" he shouted. Toots told him and he wished them good-luck, saying that he was going up to Carbury himself on errand that might detain him a couple of

Such trips were rare with Jeremy, who was important in consequence, and quite willing to establish the fact.

"Who's the geezer you got?" he yelled saucily at the lengthening distance between the two boats.

Toots merely nodded, controlling his desire to tell Welby's pompous-looking face turned red at the favored Jeremy's back with a haughty

They reached the bit of marsh in time to make camp and collect a supply of fire-wood and in a few hours' shooting on the afternoon ebb, they killed a fair number of brant, enough to feed a reasonable man, but it only whetted his

to be up and at them the next day. He had lifted his hand in any of the preparations for

light, and at suppers he sat at some distance from the fire and let Toots wait on him.

He had smoked in unobscured silence he turned remarking that there must be no delay in

going out to the grounds in the morning. His implied that he expected Toots to procrastinate if he were given the chance.

may have irritated Welby that he always got a rise out of Toots. He liked to goad

who worked for him to the point of making timid resistance, when he would turn on them

show them once for all who was master and man. But his most cutting remarks did not

to have any power to affect the quiet dig-

with which Toots efficiently did his work.

The next day was an arduous one. Welby was

stout and more exacting than ever. He rather

Toots were not so efficient, in order to have

ance to find fault. He could not very well com-

of his bag of brant, but he wondered why

hadn't had a shot at a snow goose, a few of

rather rare fowl they had seen flying over

flat blind. Once the idea was in his head he

a grievance of it.

only place we can try for those geese is

Sutter's," explained Toots. "They won't come

the 'coys. They roost-up at a sandy spot on

side of the island, and if we camped down

abouts at night we might get a crack at 'em

up, when they leave."

try don't you do these things without waiting

asked?" said Welby.

all, the shooting is good at the regular

replied Toots. "We aren't likely to get

A Thinking Job

By Fisher Ames

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more than a shot or two at the 'snows' to pay for the trouble. We'll have to bed in the grass. A tent would scare the birds."

He rolled up a pair of blankets apiece, stuffing them into his duffle-bag along with provisions enough to last for a couple of meals, and shouldering the bag, led the way to the sharpie. There was sufficient light left for sailing and Toots had no trouble in running the boat into a wide indentation in the northern end of Sutter's. Though at least a mile and a half from the roost of the snow geese it was the only feasible anchorage.

Grass covered this end of the island, thick in some places and thin in others, with a good deal of bad marsh and numerous treacherous pond-holes. By means of a punt pole Toots tested the ground as they walked along in the failing light, making headway slowly and getting well plastered with brackish mud. Welby displayed a certain timidity when his feet were sucked down into the ooze and something not far removed from positive fear while crossing the deeper drains. Only the fact that the undertaking was his own idea kept him from backing down. He was sweating profusely and profanely irritable when they reached the point where Toots decided to camp for the night.

OWING to the proximity of the goose roost they ate a cold supper, and without a fire to temper the air, bedded down, blanket-wrapped, in a nest of tall sedge. Toots was soon asleep, but the dampness of the ground, striking through his coverings, woke him a few hours later, to perceive with surprise a light in the sky. There was no moon and he was positive it was nowhere near morning. He sat up, rubbing the drowsiness out of his eyes, and then jumped quickly to his feet.

"What's the matter?" growled Welby, in response to a tug at his blanket. The next moment he rose stiffly. "What's that? Island a-fire?" He stared at the orange glow. "Any danger of it's coming here?"

"Yes, if it keeps burning," replied Toots beginning to roll his blankets. "Not as far as the boat. The pond-holes and drains would cut it off there. But I reckon we've got to head the other way."

"The other way? What d'you mean?"

"You remember that fellow we passed yesterday—Jeremy Sutter—Well, his folks live over yonder, and the old man's crippled. Ran a stinger's spur into his foot once and got blood-poisoning or something. Never could walk on it very well since. That fire's due to run right over their place and we've got to help Sutter and his wife. Being shut in by the pines that way they might not suspicion there was a fire till it was on top of them."

Welby reached for his blankets. "We've got to?" he exclaimed. "Do you think I'm going into that fire? Here, give me those things."

"Why, they're both too old to be spry, and Sutter's right lame." Toots' tone held a note of surprise.

"They have probably seen it already and got away. I'm not going, do you understand? And it's up to you, Pouchie, to take me back to the boat."

Toots continued swiftly his packing of the duffle-bag. "I'm sorry, Mr. Welby, but I can't go back with you," he said. "You can pick your way with the punt pole. You've got lots of time to make the boat."

He swung the bag over his shoulder and started toward the glow. Welby, after a moment's hesitation, followed, too angry to speak at first, but soon letting out a flood of abuse and remonstrance that seemed to have no effect whatever upon the other. It was only when he caught up and dropped a hand heavily on Toots' shoulder that the latter turned, and said quietly:

"I wouldn't do that if I were you, sir. Better come along with me. Maybe the Sutters will need us bad, and we-all are fit and spry. We'd never forget it, would we, if we went back to the boat and anything did happen to the old folks?"

He had begun to swing along again before he finished speaking. For some reason Welby felt a hesitation about taking hold of his shoulder again, and not caring to be left behind, trotted on also. He was a man who kept himself in good training through golf and other out-door sports, or the pace over the uncertain ground would soon have broken his wind, and as it was he had some difficulty in keeping up with Toots, who carried the duffle-bag and both guns, yet went on with the steady

lope of an Indian. The dangers of the marsh, as he conceived them, were more than Welby cared to face alone, or he would have beat his way back to the boat.

From the ground ahead came a burst of shrill, falsetto cries, as starting as unexpected trumpet notes, and a heavy beating of wings that trailed off into dry, rustling sounds. Large dark bodies, moving swiftly, outlined themselves momentarily against the patch of orange light as the snow geese fled from their roost. The sight, signifying as it did the upset of his campaign against the birds, intensified Welby's irritation.

Their feet crunched into harsh sand a moment later and they were free from the marsh for good. The grass became stouter, less stiffly sedge-like and outlying pines, bent and dwarfed by the wind loomed on either side. Ahead, red veins began to appear in the spreading orange glow and an ominous murmuring was back-blown to their ears. Toots had visited the island several times with Colonel Jersey and his memory of where its wood road lay was accurate. It was more of a trail than a road, but it offered far better going than the woods with their undergrowth and fallen timber.

"She's got a smart hold now," said Toots, referring to the fire.

Welby did not reply, but looked anxiously in its direction. A fierce change had taken place in it. It had acquired a sudden momentum and power, and the murmurous crackling had risen to a confident roar that swelled louder and louder, drowning the explosive poppings of sap-filled branches. The tangle of dry vegetation and resinous pines was as inflammable as oil-soaked rags. The fire leaped from tree to tree, each pine attacked flaring up with a great puff of flame like that from an ignited heap of powder, and shooting its crimson streamers into the scorched needle masses of its nearest neighbor which instantly became a magnificent torch. It was the horrible growing speed of the fire that unnerved Welby. At this rate it must surely cut them off at some point on the trail, between two wings of red death.

"Pouchie," he panted. "We can't do this. It'll get us, man."

"Oh, we'll make it," said Toots.

"We can't, I tell you. Look at that!" a wave of fire rolled forward on their right with the sweep and crash of a breaker leaping by its fellows in an engulfing rush far up a beach. "We'll be caught here—burned—it's death." Welby's voice fluted and broke into a thin, shrill sound suggestive of panic. "Look here—Pouchie—I'll give you five hundred—a thousand—get me out of this—anything—my life's as good as theirs."

"Sho, now," Toots lapsed into the soft southern drawl. "Sure it is. But we'll get there, Mr. Welby. Safe's a cat."

"Two thousand! Anything—you ask—stop—" Welby's pace broke and he staggered sideways into a thicket shrub, which threw him back into the trail again.

TOOTS put down the guns and tossed off the duffle-bag, resigning them to their fate. In the same soft drawl he spoke to Welby encouragingly, grasping him by the arm at the same time. "It's right close yonder, the house," he said. "We'll have 'em out in no time if they're there. We'll cut across to the beach, as nice and easy. Sho, now, we've got time to burn. I reckon the old folks'll be glad to see us—they'll be ~~delighted~~ without Jeremy." But I reckon you and I'll be mighty near as good as two Jeremys when we get our wind."

Flocks of cinders were soaring and wheeling overhead like red-hot birds, and a bitter, resinous smoke that burnt the eyes swirled across the trail. The roaring front of the fire was some distance off, but isolated blazes were springing up in advance of it as bits of flaming bark fell into the undergrowth like spent rockets. It would not be many minutes before these spread, united and formed a new front.

"Two thousand I said. Did you hear? Two thousand if you get me out of this—now," wheezed Welby. "Don't you see—we can't get on?"

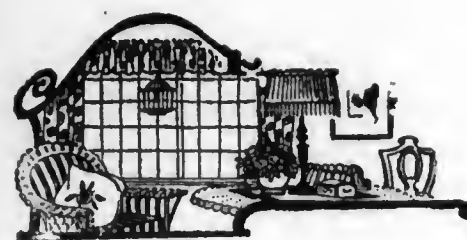
"No, not straight," said Toots. "But we turn hereabouts. Yes, there she is."

By a half dead cedar with an enormous butt the trail swung to the left, and ran off at right angles to its former course. Leading his companion, Toots encouraged him as he would have a frightened child and shortly after they had taken the turn the trail ended in a little compound, or clearing, almost filled by a log-house and its small attendant sheds. A light glowed through the two windows of the house and hens were squawking raucously in their pen. To Welby it was like the abrupt discovery of a main-traveled highway later he had given up all hope of finding his bearings.

(To be continued.)



This picture taken at the agricultural school, Plant City, Fla., includes most of the members of the 1930 Pennsylvania Farmer tour to Florida and Cuba.



The Farm Home



Hints to Hostesses

By MARION COSSITT BRACKIN

ARE you planning a luncheon? I have just had one and am enjoying that little thrill which comes with the knowledge that one is capable of giving a pleasant party, doing all the work herself, and keeping the regular home routine in smooth running order. But if all this is to be done gracefully, you must hold to these two sane rules. Do everything possible the day before the luncheon, and choose recipes you have tried before.

Try any new recipes you may wish to use a week or so before your party. The family will no doubt be delighted. Then you may proceed with your party, having that feeling of assurance which is so helpful to the hostess.

The menu which I selected for my luncheon included oyster patties, potato chips, rolls, pear salad, peas and carrots buttered, celery hearts, cranberry sauce, nut bread sandwiches, drop cakes, brick ice cream, coffee, mints. The pear salad was especially pretty and easy to prepare—and good!

Two halves of pear rested on a bed of lettuce, round side up. A tiny hollow was scooped out of each half pear, and in one hollow was placed a ball of cream cheese which had been rolled in ground English walnuts. On the other hollowed pear half went a red maraschino cherry. A fruit salad dressing was used with this salad.

The patties, cakes and nut bread were made the day before the party. The rolls were bought and reheated in my oven. Chicken would be delicious in the patties instead of oysters, and twenty-four hour salad is delightful. It may be entirely prepared the day before the luncheon. Here is the recipe:

Twenty-Four Hour Salad

One pound almonds (before shelling), one large can crushed pineapple, one-half pound white grapes, one-half pound marshmallows, one small bottle maraschino cherries, one-half pint whipped cream, salt, yolks of four eggs, two tablespoons sugar, one-half cup milk, juice of one lemon.

Scald milk in double boiler. Add beaten egg yolks and lemon juice. Let cool. Prepare fruit, cutting up cherries if desired, and draining pineapple. Add fruit to above mixture. Add whipped cream last. Let stand on ice twenty-four hours.

In the Sick Room

THESE are the days that so many mothers have children recovering from measles, scarlet fever or one of the many children's diseases. When the child is very ill it is easy to care for him. When he is convalescing he demands more attention. The mother quite frequently finds it difficult to think of things to occupy his mind that will keep him as quiet as is necessary for him to regain the best of health.

A mistake is frequently made in trying to think of the unusual. Give him ordinary things and he will entertain himself. Magazines, scissors, paste, boxes, wrapping paper, crayons, pencils, colored wools, plain paper, colored papers and modeling clay are familiar to every child. Though they are ordinary the child will entertain himself by the hour. Mother may have to do some directing, as he has been receiving much attention while sick and will expect some of it continued.

Start him covering a box with colored advertisements and you will be surprised to see how he will progress and how much time it will consume. Tell him father's birthday is next month, sister's is in the summer. Pick out the anniversaries for the family. Let him know how you need his help in planning for these events. Let him plan some jokes for each anniversary and let him plan favors. A little wool doll or animal might be made from

the yarn and wrapped in a number of boxes as a joke.

A number of fortunes may be prophesied by cutting out advertisements and labeling them. A piano advertisement may be labeled musician or piano tuner. Each advertisement will suggest something. These can be placed in envelopes and the child can tell the fortunes of his friends as they call by telling them to select one of the envelopes.

One little three-year-old was amused for almost an hour when she was flat on her back by a bright colored feather. Her mother put a drop of glue on the end of the feather. The child picked the feather from hand to hand and was much amused that she didn't lose it.

A little girl of seven suggested making clay balls, and dropping them on a box as a game. A ball was dropped from the hand about two feet above the box. The second player did likewise. The

The Fireless Cooker

By HEPSY NEFF

IT is more than probable that the success of the fireless cooker a score of years ago brought to our American kitchens its equivalent in gas and electric stoves with double walled ovens, and when the heat reaches a certain temperature the gas may be wholly cut off and the cooking completed on the fireless plan. Perhaps you may yet find the steady, even temperature of the fireless cooker method contributes to the safety of the precious vitamins of our leafy vegetables.

Another gain in fireless cooking is that once action no further attention is needed until the process is finished. Already smaller cooking vessels are on the market, made in sections so that three or four of them placed together make a complete cylinder needing the heat of but one burner and adding to the convenience cooking for a small family. Even all these new conveniences on the market many farm women are within reach of either gas or electricity and for them the return of the fireless cooker is a real advantage.

Briefly, a fireless cooker needs a square box, perhaps two feet square, and plenty of fine soft hay, sheet of tin that will provide a center and keep the hay in place that a ten-inch space is always reserved to use adds to its convenience several smooth halves of brick completes the job. Handleless cooking vessels of the size and shape of a jar are especially convenient. The bricks, bring whatever is to be cooked to the boiling point, place the hot bricks, cover close and with a thick hay cushion before the lid of the box is closed tight.

Such a fireless cooker will give good results as can be had with best insulated ovens on gas or electric stoves. Once a list of vegetables or other foods suited to fireless methods, with the time needed in cooking is in hand the process may go successfully and indefinitely.

It Begins at Home

We have careful thought for the sick and a smile for the off-time guest. But off for our own, the bitter cold. Though we love our own the best.

MANY of us will be honest enough to admit that this poem is true in our own lives. But ought it to be so?

One of my friends has a county judge for his pal. One day he heard a man say to the judge's relatives, "Yes, you can do as please for the judge would not do anything for you." "No," answered the fond cousin, "I not know that judge. He feels that his should know better than to get into court, promises that if they do he will give them maximum punishment."

Our Very Best Vinegar

PATIENCE is sometimes needed in securing vinegar. Once upon a time we had strange experience. We filled our fine gallon cask with cider for vinegar and tried to the usual dose of "mother."

The next fall when we sampled our new vinegar we were surprised to find only tasteless nothing at all like vinegar. Husband thought might as well dump it out, but on second thought he said, "Well, we do not need the cask, stuff will at least keep it from falling into after all, why not wait to empty it till we have the cask?" And we did.

A year later when we wanted to refill the cask we had another surprise. Here were fifty of the very finest tasting and strongest vinegar I had ever sampled. So try patience on your poor vinegar.

BACK HOME

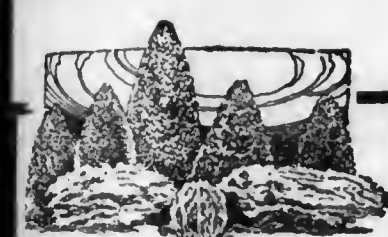
Marguerite Steele McCreary

I WANT to go back home today. I want to go back home; Back where the ploughman's turning up Furrows of shiny loam.

The sun shines warm and bright back home Among the daffodils. About the blue's loosening tips. Along the garden-hills.

The birds are singing sweetly there The robin chirps his love; And from the budding orchard trees Come quaint notes of a dove.

Through the little woods below the barn Again I look to you; I want to go back home today. I want to go back home.



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Favorites for Spring

No. 6770.—Ladies' dress. Cut in six sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. A 38-inch size requires 4 1/2 yards of 35-inch material. For contrasting material 1-3 yard is required. Price 15c or two for 25c.

No. 6367.—Ladies' house frock. Cut in nine sizes: 38, 40, 42, 44, 46, 48, 50, 52 and 54 inches bust measure. A 46-inch size requires 5 1/2 yards of 36-inch material. To face belt and plastron with contrasting material requires 1/2 yard 27 inches wide. Price 15c or two for 25c.

No. 6766.—Ladies' dress. Cut in five sizes: 34, 36, 38, 40 and 42 inches bust measure. A 38-inch size requires 4 1/2 yards of 39-inch material. To finish with bias binding requires 3/4 yard 1 1/2 inches wide. Price 15c or two for 25c.

No. 6658.—Ladies' dress. Cut in five sizes: 34, 36, 38, 40 and 42 inches bust measure. A 38-inch size requires 4 1/2 yards of 39-inch material. For cuffs of contrasting material 1/2 yard 39 inches wide is required. The width of the dress at the lower edge with fullness extended is about 2 1/2 yards. Price 15c or two for 25c.

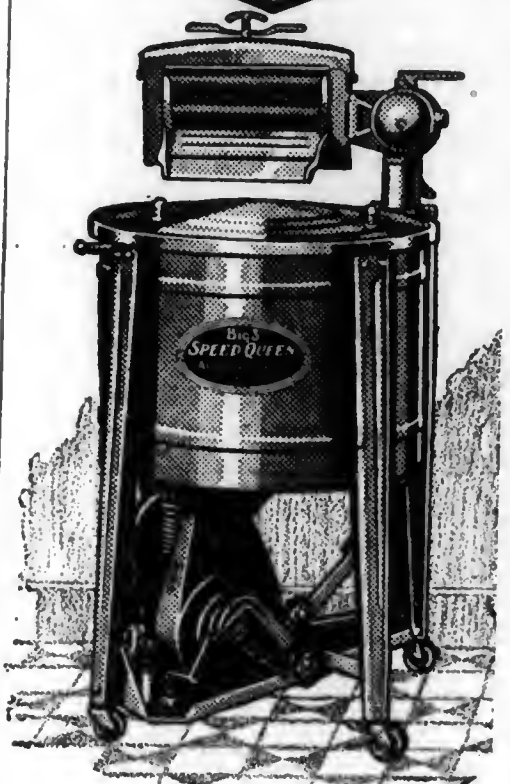
No. 6733.—Girls' dress. Cut in four sizes: 6 months, 1, 2 and 3 years. A 2-year size with wrist length sleeves requires 1 1/2 yards of 35-inch material. With short sleeves 1 1/4 yards is required. To trim with bias binding requires 2 yards 1 1/2 inches wide. Price 15c or two for 25c.

No. 6771.—Ladies' jacket. Cut in six sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. A 38-inch size requires 3 yards of 39-inch material. To face with contrasting material requires 1/2 yard 39 inches wide cut crosswise. To line the jacket requires 2 1/4 yards 39 inches wide. Price 15c or two for 25c.

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MARKET PLACE

By W. R. WHITACRE

WE think of the supply of potatoes, cabbage, or any other commodity as consisting of a definite number of bushels or tons. Whenever actual shortage occurs and prices soar far above normal, additional supplies that we have not considered begin to come on the market.

One good illustration of this is being experienced. A shortage of old crop cabbage caused prices to reach \$70 a ton at shipping point and relatively high prices in the cities. There was plenty of new crop cabbage and it would seem that consumers would substitute the new cabbage for old. The housewife has done this, but the largest consumers of old cabbage, the sauerkraut manufacturers, did not. They need the solid white heads and the new green stock does not suit their purposes.

The high prices made it profitable for growers in Holland and Denmark to ship their cabbage across the ocean to the United States. The Holland cabbage is of good quality with exceptionally firm heads. It is selling in Philadelphia at about \$3 per 100-pound crate. The containers used for this imported cabbage vary from the standard wooden crate bound with metal to the picturesque hand woven baskets made of willow shoots.

Popular Colors

This Holland cabbage is of the green or white variety, but in former years most of it that reached this market was of the red variety. Cities with a large German population were good outlets for red cabbage, but it was not generally popular. The preference that the consumer shows for colors in fruits and vegetables is inconsistent. The average buyer will choose a red apple and pay more for it than a yellow or a green one, but when it comes to potatoes he will choose the regular brown or earth color to red ones.

A few weeks ago I mentioned in this column that old crop red potatoes were occasionally offered as new stock. A carload of Bliss Triumph from New Brunswick were since noted, packed in double head barrels. This package is distinctly a Florida container, as none of the other potato sections use it to any extent. The only difference between this barrel and those used in Florida was the fact that saplings were used for hoops instead of the machined kind. The potatoes were small and had been cleaned, but I believe no one was fooled, since they sold at prices well below those received for new potatoes.

A Question of Pruning

How would you prune a peach orchard this spring which has all its fruit buds winter killed? Would you give a light pruning or cut them back hard or would you prune just as if a crop was expected? These trees are in their third crop year. Two years ago the same thing happened but last year there was a full crop. The orchard site is not a very good one and having lost two out of three crops makes it a questionable matter to spend money on pruning and fertilizing. A. L. H.

I WOULD not prune these peach trees with frozen buds hard, now. They should be pruned lightly, if at all. It is quite possible that some of the buds that now seem dead will come through; this has been a common experience in other years. I would defer pruning until after blossoming time. Then, if there is a scattering of blossoms, I would not prune at all, except, perhaps, to take out some wood in the center of the tree. Give these trees an extra dose of nitrate this spring. If, however, no blossoms appear, the trees can be pruned rather heavily. S. W. F.

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And it's a great all-purpose machine, too. It can also be used for any regular disking or plowing job—just the thing for disking corn stubble for plowing and disking orchards, as many growers will tell you.

Fitted with disks of cutlery steel and a heavy forged sharp, forcing puts on an extra sharp, sharp and that won't crack or bend. Unusually guaranteed for 3 years.

City coupon for FREE pamphlet which tells about the Clark "Cutaway" Bush & Hog Plover Harrow. FREE book, "The Soil and Its Uses," also sent.

The Cutaway Harrow Company, 110 Main Street, Hingham, Conn.

Please send me FREE catalog, prices and name of dealer nearest me.

Name _____

Address _____

City _____ State _____

Send me FREE pamphlet which tells about the Clark "Cutaway" Bush & Hog Plover Harrow. FREE book, "The Soil and Its Uses," also sent.

There are many more advantages possessed by the Clark "Cutaway" Bush & Hog Plover Harrow than can be stated in this column. Write for full details.

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Spring Tooth Harrows Out of Date New Type Harrow Replaces Them

Ordinary spring-tooth harrows are going out of Pennsylvania. Their place is being taken by a new harrow more suited to the requirements of Pennsylvania farmers. This new harrow is called the WEED HOG. At first glance it looks like a spring tooth harrow but the likeness ends right there. The WEED HOG, built almost entirely of tempered spring steel, is fitted with long SPIRAL teeth. These teeth may be regulated without weights, to penetrate from a few inches to full FLOW depth. They suck in the ground like plow points, break and rip up the soil and thoroughly mix the humus plow depth. The result is a fine, deep, well-mixed seed bed that potatoes and such crops can't help thriving in.

Yet seed beds now require only the plow and the WEED HOG. And in many cases, the WEED HOG does the entire job alone.

GRASS STUBBLE
Grass stubble may be put in shape for the planter with no other tool but the WEED HOG. It turns up and mixes stubble with the soil and leaves a well worked, deep seed bed.

IN ORCHARDS
The WEED HOG is a great tool to keep orchards in good shape. It breaks up the soil, keeps weeds down and makes the soil.

NO CLOGGING
It's a revelation to watch the WEED HOG work in trash and straw manure, plow depth, without clogging. The reason is that the WEED HOG has no teeth to drag trash while the flexible frame makes it loose.

TEETH WON'T BREAK
It's amazing to see the WEED HOG teeth go down deep and work under and around rocks, stumps, stirring and mixing the rich unworked soil with the top soil. The amazing fact is that the WEED HOG's teeth won't break or bend. THEY'RE GUARANTEED FOR 3 YEARS.

GET THE FACTS—THEY'RE FREE!
There are many more advantages possessed by the WEED HOG, such as its adjustable teeth. Clip coupon for free pamphlet, "The Deep Digger" which shows the WEED HOG in action and tells what farmers who use it say.

Send me FREE pamphlet which tells about the WEED HOG and shows what it can do in action.

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Truck Crops

By G. S. WATTS

"IS the Mastodon strawberry profitable and does it bear well?" inquires a reader. Under favorable culture this variety usually produces a crop that is by no means negligible. One of the difficulties in the way of profit is the long drawn out picking season. There are likely to be a great many light pickings, a tedious and expensive matter in comparison with the few very heavy pickings secured from standard varieties. Yet some growers who can sell late summer and fall berries at high prices feel that they are profitable.

Seeds Left from Last Year

"I HAVE a good supply of garden seeds left over. Are they likely to grow if used this spring?" Carrot, onion and parsnip seeds from last year are quite likely to be too weak to make a good stand but I have experienced exceptions to this rule. Most of the other vegetable seeds are good for two or more years. Some when stored in a well ventilated dry place are worth using after five years.

The safe plan, one that may save the expense of buying new seed on the one hand or the waste of labor that goes with planting dead seed on the other hand, is to make simple tests of germination right now. This may be done in a pan of soil or between moist sheets of blotting paper kept on a plate in a warm room.

Raspberries and Strawberries

A READER desires to know where to get complete information on these crops can be secured. Send to The School of Agriculture and Experiment Station, State College, Pa., for Extension Circular No. 106, Strawberry Culture in Pennsylvania. Send to The Office of Information, U. S. Department of Agriculture, Washington, D. C., for Farmers' Bulletins Nos. 887 and 1028, entitled Strawberry Culture and Raspberry Culture.

Asparagus

Will you please tell me when to put salt on the asparagus for weeds and how much? Anna Louise Stevens.

THE custom of applying salt to asparagus beds for either the purpose of fertilizing or to kill weeds has been discontinued by most growers.

I would suggest that you harrow the entire bed very thoroughly as early in the spring as the soil is in condition to work. Then repeat at short intervals as many times as possible before the spears begin to appear or push near enough to the surface to be injured. Keep the cultivator going during the cutting season and as long after as you can get through.



When V-C rides the breeze

OTHER scents mark other seasons, but the smell of fresh turned earth says "Time to plant! Catch that V-C on the breeze?"

V-C sharpens the air of the older countryside with its reminder of planting. On many a faithful old farm V-C is family tradition—and as the newer regions learn that fertilizing pays, V-C goes on to make more friends. Hundreds of thousands of tons of Virginia-Carolina fertilizer are put into the ground each year—to come piling back as early yields, heavy yields, yields rich in market quality; yields that return all their cost and pay handsome profit besides.

Because V-C fertilizer is a wise investment like good seed and good land, because it *makes* money, V-C rides the breeze wherever good farming is practiced. V-C belongs with planting time—it is the spice of Spring.

There is a profitable V-C fertilizer for your crops and soil. If you haven't found it, let us help you now. Write to

Virginia-Carolina Chemical Corp.
RICHMOND, VIRGINIA
A V-C office and factory are near you

Raise them husky back of Cambria Fence

A strong and durable woven-wire fence, made of specially selected Bethlehem steel and heavily coated with zinc by a special process, Cambria Fence gives you many years of trouble-free service. There is a style for every farm use, for turning horses and cattle, sheep and hogs; for chickens and rabbits, little chickens, and for enclosing orchards. Ask your dealer about Cambria Fence.

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BETHLEHEM STEEL COMPANY, General Offices: Bethlehem, Pa.



LIMESTONE PULVERIZERS
and **Swing Hammer Feed Mills**
Try them out on your own farm before buying. Write for free literature. **O. B. WISE COMPANY,** Knoxville, Tennessee.

Certified Seed Potatoes
Green Mountains, Irish Cobbler, Smooth Rurals and Russet Rurals—College inspected. Satisfaction upon arrival guaranteed. Write for prices. We pay the freight. **NEW YORK CO-OP SEED POTATO ASS'N, INC.** UTICA, N. Y.

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By FRANK K. RICH

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Being thus adjured, Caleb complied agreeably.

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"This bein' the case, and s'posin' I'm right about it, my guess is that Eph decided to interfere a little with the course of Nature; so he went to work and built that reef—it amounts to a dam, you might say—with the idea of haltin' that water b'fore it got a chance to help Peter. I d'know where he cal'lated it would go; I s'pose likely he figgered it'd soak into the ground and he'd git rid of it that way. Mebbe it would have if there wa'n't a foot of hard-pan under a clay soil right along there."

"Anyway, he built the dam. If you c'n call it that, and if we'd had a dry summer he'd have been the cause of ruinin' Peter's crop in that field, to say the least. But it turned out to be a pretty wet summer, so Peter made a crop with what rain he got—and Eph's spite didn't work jest as he figgered it would. As a matter of fact," he added contentedly, "it worked right the opposite, and Eph's tryin' to mend it now, when it's too late."

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Rack dried by natural process in our modern Seed House. Grown on our own 1400 acre farms. Tested for germination.
CASH—Very early, heavy yielder, deep grain, small cob, medium stalk, excellent feed for stock.
CLARAGE—Mid-season variety, produces well, good grain, medium to large fodder, general favorite.
Also, have Blue Clarage, White Cob, Early Mammoth, Reids Yellow Dent and Ensilage varieties.



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LATHAM RED RASPBERRY
NEW LOGAN BLACK CAP RASPBERRY
(More Resistant to Mould)
GALLIA BEAUTY APPLE
(Red Strain of Rome)

These outstanding new varieties and the best of the standard kinds are fully described in our new catalog.

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SULKY PLOW



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Roller Bearing Foot Trip
Special Spring Draw Chain
10-20 Less Parts than other Sulkies make this Plow superior to other Plows of this type.

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help you do more work at less cost
EIGHT MODELS
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THOUSANDS IN USE

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Please send me your FREE CATALOG that tells about the AB-Purpose Bolens Garden tractor and what it will do. 131

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For a heavy crop of hay—pasture green manure, soil improvement, Hoffman's Sweet Clover. Rich in protein. Thrives where other clovers fail. alfalfa will not grow. Galled scarified—it starts quickly. One 50% per cent. Free from four to five. Pure. Three varieties—White, Yellow Blossom, also Grandy Dwarf strain.
Write today for free samples and new catalog of field seeds.
A. H. HOFFMAN, Inc.
Box 413, Landisville, Lancaster Co., Pa.

HAUCK WEED BURNER
The modern, sure way to kill weeds. Use the Hauck Weed Burner. Burns them down—stems and seeds. Kills them, and half of old methods. Used by farmers, road commissioners, parks, country clubs, golf courses, etc. Write for literature. Hauck Mfg. Co., 118 Tenth St., St. Louis, Mo.

After all, isn't this the Testimonial you're looking for?

We could easily and honestly fill this page with the familiar names and pictures of the celebrated and the great. Most people of prominence use Goodyear Tires as a matter of course, and would be glad to indorse them. But as an attest of Goodyear merit we submit instead another sort of testimonial, packing within its expression the indorsement of literally millions of tire-users like yourself:

What question can you have of tire quality, or performance, or service, or price, that this eloquent fact does not decisively answer? **C.** What is it you seek in a tire that is not also sought, and found in Goodyear Tires in surplus measure, by the millions of Goodyear users throughout the world? **C.** What requirement can you raise of uniformity, dependability, safety, value, that is not assured by this 15-year-old record of matchless popularity? **C.** What mere promise, or claim of excellence, can be successfully held out to you as against this evidence of Goodyear superiority? **C.** These are not superfluous questions; there are still many people who do not use Goodyear Tires, and we are frankly puzzled to know why. **C.** If you do not use them for some reason, we will be sincerely appreciative if you will write and tell us what that reason is.



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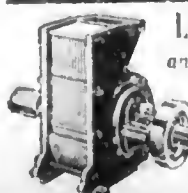
Raise them husky back of Cambria Fence

A strong and durable woven-wire fence, made of specially selected Bethlehem steel and heavily coated with zinc by a special process, Cambria Fence gives you many years of trouble-free service. There is a style for every farm use, for turning horses and cattle, sheep and hogs; for chickens and rabbits, little chickens, and for enclosing orchards. Ask your dealer about Cambria Fence.



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BETHLEHEM STEEL COMPANY, General Offices: Bethlehem, Pa.



LIMESTONE PULVERIZERS
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Certified Seed Potatoes

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CALLIA BEAUTY APPLE
(Red Strain of Rome)

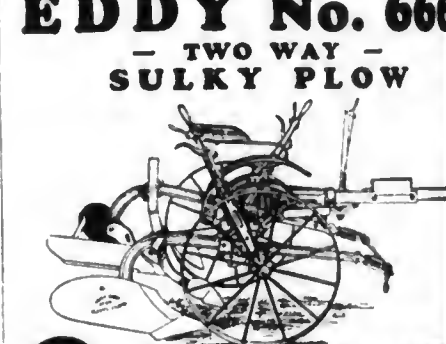
These outstanding new varieties and the best of the standard kinds are fully described in our new catalog.

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3 SPECIAL FEATURES

Roller Bearing Foot Trip
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For Free Folder write Eddy Plow Works, Greenwich, N. Y. Give your dealer's name and ask for Booklet S-7.

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BOLENS Garden Tractors

help you do more work at less cost

EIGHT MODELS ALL ATTACHMENTS INTERCHANGEABLE THOUSANDS IN USE

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GILSON BOLENS MFG. CO.
512 Park St., Port Washington, Wis.
Please send me your FREE CATALOG that tells about the All-Purpose Bolen's Garden tractor and what it will do. 151

Name _____
Address _____
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HOFFMAN'S SWEET CLOVER

For a heavy crop of hay—pasture green manure, soil improvement—Hoffman's Sweet Clover. Rich in protein. Thrives where other clovers fail. alfalfa will not grow. Killed by frost—it starts quickly. Grows 90% per cent. Free from root rot. Pure. Three varieties—White Blossom, Yellow Blossom, also Grandy Dwarf Strain.

Write today for free samples and new catalog of field goods.

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This month, free with your order, a new book, "How to Burn Weeds," which tells you how to burn weeds, grass, and brush, and how to use the Hauck Weed Burners. Write today for your free copy. Hauck Mfg. Co., 113 South Street, Philadelphia, Pa.

After all, isn't
this the
Testimonial
you're looking
for?

We could easily and honestly fill this page with the familiar names and pictures of the celebrated and the great. Most people of prominence use Goodyear Tires as a matter of course, and would be glad to indorse them. But as an attest of Goodyear merit we submit instead another sort of testimonial, packing within its expression the indorsement of literally millions of tire-users like yourself:

What question can you have of tire quality, or performance, or service, or price, that this eloquent fact does not decisively answer? **C.** What is it you seek in a tire that is not also sought, and found in Goodyear Tires in surplus measure, by the millions of Goodyear users throughout the world? **C.** What requirement can you raise of uniformity, dependability, safety, value, that is not assured by this 15-year-old record of matchless popularity? **C.** What mere promise, or claim of excellence, can be successfully held out to you as against this evidence of Goodyear superiority? **C.** These are not superfluous questions; there are still many people who do not use Goodyear Tires, and we are frankly puzzled to know why. **C.** If you do not use them for some reason, we will be sincerely appreciative if you will write and tell us what that reason is.



Old Friends . . . THE BUICK DEALER AND THE USED CAR BUYER

Almost anyone can make a *sale*—but only the merchant who deals fairly and squarely can make a *friend*.

Scores of thousands of used car buyers have given not merely their orders but their friendship to the Buick Dealers in their communities—and come back to buy from them again and again.

The facts which cause these motorists to regard Buick Dealers as old friends will interest you if you are in the market for a used car of any make.

Buick Dealers are permanent dealers. They have held their Buick dealership five, ten, even twenty years. They remain in business, and stand back of the cars they sell.

Buick Dealers are *selected men*. They figure prominently in their communities . . . one was recently appointed to the

cabinet of the President of the United States . . . and all are friendly, responsible, reliable merchants.

Moreover, in motor car selling as in motor car servicing, Buick Dealers dedicate themselves to this main tenet of the Buick creed: to *satisfy the customer*.

Visit your Buick Dealer. See his wide selection of used cars of various makes. And buy with confidence, for he is an expert in transportation, whether you wish to pay \$200 or \$2000.

He will see that you get full value in a used car; he will offer it on the most reasonable terms; he will go the limit to please you that he may number you among his friends.

BUICK MOTOR COMPANY, FLINT, MICHIGAN
Canadian Factories Division of General Motors Corporation
McLaughlin-Buick, Oshawa, Ont. Builders of Buick and Marquette Motor Cars



March 22, 1930.

It flowin' onto Peter's land, it had do the next best; and that happened to be right backward and down into Eph's cellar.

"You know how it's rained this fall, Hyne?" Caleb inquired. "Well, after the heft of his fall work was over, Eph and his wife took a couple of weeks and went visitin' over to Wellham—and while they was gone it rained about every other day. The ground was soaked full and that yard of Eph's looked like a mill-pond. I took notice of it more'n once and my better nature hinted to me that it'd be a kind act to make a break in that dam he'd built so the water c'd drain away and save floodin' his cellar. But I'd guessed so sure whilst he was buildin' it jest what his motives must be that I held my hand and didn't do nothin' to help nor hinder, either way. I thought I'd let himself teach himself a lesson.

Worth the Money

"And he did, Hyne," Caleb went on happily. "though of course this is jest another guess—but I know it's right. I figgered the fu'st thing he'd do when he got home would be to break a hole there and let the water run off—and you c'n see him doin' it!"

"And the next thing he'll do," Caleb said, "will be to pump out his cellar; and the next will be to lug up about twenty dollars worth of Portland cement that the water's ruined—I know it's there because I hauled it for him and helped him put it down cellar myself. And after that he's got better'n a hund'ud bushels of apples to lug up and dry out, so they won't rot, and twice as many p'taters—besides all the other truck there is down there that'll have to be dried out.

"Fifty dollars, work and money, ain't goin' to put him back where he was afore he tried to work a spite," Caleb estimated, "and I'm glad I never done a hand's turn to meddle. If it's the cause of a change of heart in him it's goin' to be worth more'n fifty dollars, the way I look at it!"

"With more'n fifty dollars to who?" the deacon demanded.

"With it to Eph's neighbors," Caleb returned, giving the deacon a glance that showed appreciation of the latter's quickness. "And mebbe it'll be worth a little to Eph next time," he added. "I hope so, anyway."



A 33-Year-Old Horse

TWENTY-SEVEN years ago last month I bought a matched team of fine bay mares from Sheriff Hoover of Somerset county, Pa. I still have one of these mares—Maud—whose picture accompanies this sketch. She will be thirty-three years old this spring.

Maud came from a Kansas ranch and bears a letter "C" branded on her left shoulder. She was one of a carload, bought in Kansas by Mahlon Schrock, a well-known horse dealer of Somerset, Pa.

She has all the best qualities a good horse can have. She is perfectly sound yet, without a blemish. Up to this time she has done her full share of all kinds of farm work.

Ed. J. Friedline.

PENNSYLVANIA FARMER

(447) 19

Here's the Easiest Operated Cultivator

You
ever
saw



EST. 1842
THE CASE Pivot Axle Cultivator almost runs itself. Just sit in the comfortable, adjustable seat, put your feet on the easy working wheel-guide, gang-shift pedals and do a thorough job of corn plowing with a minimum of effort. The gangs shift smoothly on rollers.

Individual depth levers for each gang, a handy spacing lever to adjust distance between gangs and a spring assisted master lever which raises and lowers both gangs at the same time—these are Case features you'll like.

The entire machine is simple in construction—and extra strong to stand continuous work. The famous Case-made, suspension type wheels are quickly changeable for rows from 34 to 44 inches apart.

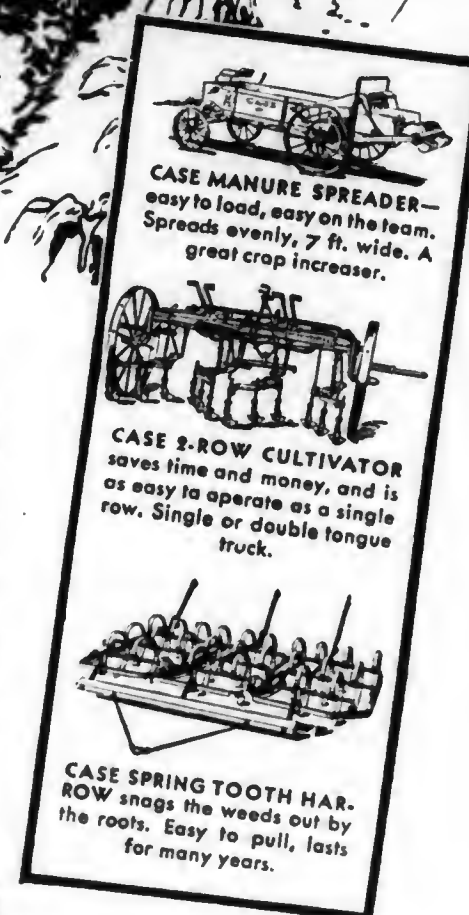
And here's a time and worry-saver for you—only one greasing a season is necessary because of the special Case magazine wheel box. Easy and comfortable to operate, light on the team.

A complete assortment of standards and shovels is available. Ask your Case dealer to tell you about them. Don't buy a cultivator until you see this remarkable, easily-operated Case machine. Send for interestingly illustrated folder.

J. I. CASE COMPANY, INC., DEPT. 201-C, Racine, Wisconsin

CASE

QUALITY MACHINES
For PROFITABLE FARMING



CASE MANURE SPREADER—easy to load, easy on the team. Spreads evenly, 7 ft. wide. A great crop increaser.

CASE 2-ROW CULTIVATOR saves time and money, and is as easy to operate as a single row. Single or double tongue truck.

CASE SPRING TOOTH HARROW snaps the weeds out by the roots. Easy to pull, lasts for many years.

Quality Preferred

WHEN you go into town on Saturday for the week's buying, how do you go about it? The chances are that your mind is pretty well made-up—not only as to general description of the products you want, but as to the brand names. You'll mention familiar merchandise easily, naturally. Names of advertised goods.

You prefer advertised goods because you know you can depend on them. You save hours of shopping time in a year because you don't need to investigate or examine the things you want. You don't buy on suspicion—you buy with confidence—because you know goods that are consistently advertised must maintain consistent quality. It is ruinous for a manufacturer to turn the spotlight of advertising on an inferior product. And advertisers know it. Hence advertising is a guarantee of dependability.

Read the advertisements regularly. When you go to buy, be informed!

YOU CAN BE SURE THE QUALITY IS "AS REPRESENTED" WHEN YOU BUY ADVERTISED GOODS.

THE YOUNG PEOPLE

A Bunny Bout Party

BIG or little folks will be delighted if you plan a Bunny Bout Party during the Easter season. The party planned here is primarily for children since we have had so many requests for something of this kind, but it can be easily adapted for older ones.

Invitations read:

You are invited to a
Bunny Bout
To be held on
Saturday Afternoon, 4 to 7
At the House of
.....
Please answer.

Invitations may be written on colored cardboard cut egg-shaped.

As the guests arrive the hostess greets them, then seats them in a large ring.

Mother, or a helpful friend, then "enters the ring" and asks: "Would you like me to tell you a story?" Of course the guests will chorus "yes."

"Well, you were invited to a 'Bunny Bout,' weren't you? Now I am going to tell you 'a-bout a bunny'."

"He was an Easter bunny, and this is a fairy tale about him."

"One day, late in April, a small, white, pink-eyed bunny hopped to his mother's side and said, 'Mother, when was I born?' and she answered, 'On Easter Sunday.'"

"Is that why I like Easter eggs so much?" was the next question.

"Perhaps," said his mother, "but you are old enough now to know that your father is the most famous painter of Easter eggs in the whole wide world. He mixes his paints by day, and at night, in his underground studio, paints most of the eggs for the Easter celebration."

"Bunnies from far and near come to his well-known hole, carry away the eggs and hide them throughout the world."

"Every rabbit hole is given some of the loveliest ones, and the rest mere people can have. Some day you must take your father's place, and you should be even better, for you are a real Easter bunny."

"Mother, wouldn't people love to



visit our home down here, and see father's best eggs? And, another thing, wouldn't they be surprised to know that it's in rabbit holes that all the Mother Goose people live when they're not in books?"

"Sh. sh. son, never speak of that, or some one will find it out. Alice half learned our secret when she went to Wonderland, but no one else has ever tried to enter a rabbit's hole."

"Some one may try it again, Mother; what then?"

"Well, we shall wait until it happens," she said.

"Now, children, why don't we try it? Would you like to visit that rabbit's hole?" Would they?

A little work on Mother's part before the party day, and the laundry downstairs has been transformed into Bunnyland, a place fit to thrill the heart of any child.

Visitors must first form in line, single file, and march on tiptoe round and round the house, to music, if possible. As they pass through one room, a queer box office with a painted sign is noticed. "Tickets for the Rabbit's Hole," it says.

Each "admission guarantee" is cut from white mat stock, or letter paper, and decorated with an Easter gummed seal; or, it may be, instead of making the tickets, that little Easter cut-outs are used.

And now, following the leader out through the kitchen, the kiddies go to the top of the stairs, where they stop; for here stands a live bunny policeman, with a stop and go sign in his hand.

A few big paper brass buttons, a badge on father's coat, and a concocted hat makes a frightful policeman of any small boy. As he pockets the tickets, children descend one at a time, for the way is hard and sometimes crooked, as a rabbit's hole should be.



USE THIS COUPON TO ORDER INTERESTING BOOKS

Please send me the books postpaid that I have checked below:
Children's Parties, including games and suggestions for decorating..... 10c
Gala Book, including games, instructions and illustrations..... 10c
How to Make Table Decorations and Favors, including instructions for making many types of favors..... 10c

Name

Address

R. D.

Mail all orders to Party Editor, Pennsylvania Farmer, 7301 Penn Ave., Pittsburgh, Pa.

Of course, any room can be the "rabbit's hole," though the downstairs idea is most intriguing.

With brown crepe paper the stairs may be closed in on the side, a string or wire run along the top being a sufficient support for the paper if there is no wood to which one may tack. Brown crepe paper is also cut into coarse fringe and hung across the stairs low enough so that a child must bend almost double in order to pass down. Squeals of delight will come from those who are exploring.

And, oh, when the next sight meets the eye! The rabbit's hole itself decked in Easter array! There are real branches, hung with a moss-like shredded paper, violet, yellow, pink and green. Oval balloons in lovely colors sway from overhead branches, resembling huge Easter eggs, and there are "bunnies about" here, there and everywhere.

Mat stock bunnies, peeping through the "bushes"—busy bunnies cut from crepe paper designs and bunnies on parade, just as they come in a fold of crepe paper. Nor are the bunnies alone. Ducks, chickens and many nursery friends are there, too.

When down, the fun begins. An egg hunt must never be omitted from an Easter party. Pass each child a paper bag and say, "Go." Jelly beans, Jordan almonds, to say nothing of the many eggs on the market may be hidden about. A few special, very hard-to-find-eggs "egg" the children on to the best effort.

Sadly now Mother calls attention to one side of the room, part way along which stretches a gray crepe paper wall. Here once sat Humpty-Dumpty, King of Eggs. Children are asked to hunt for his broken pieces. When all are found and put together again, with the aid of an older person, Humpty-Dumpty again smiles from his seat of vantage.

Mother beforehand cuts two large eggs from white mat stock. One is

painted with a face, and then cut into odd-shaped pieces for hiding. The other is reserved so that the discovered pieces may later be pasted to it to form a solid egg.

It does not take the children long to discover that in one corner of the rabbit's hole sits the yellow goose which laid the golden egg. With a little coaxing she will give to each child a golden egg from her basket. Unwrapped, the egg is found to contain a favor. A little rabbit's-foot, lucky charm, perhaps, a bag of marbles, jack-stones or any spring toy.

Mother's arm is really the yellow goose, the hand forming head and bill, while a cambric-covered arm is the long neck. A cardboard bill is arranged to open and shut, which with a bit of practice will work with great success. The rest of Mother is concealed behind a curtain.

The remainder, if any, of the time is filled in with games that all the children know and enjoy. They may, of course, be adapted to Easter.

And now, from a distance, is heard the sound of the supper bell. Needless to say the children scramble up out of the rabbit's hole to the dining room, where the table must have been set by magic, for it was not there when the children passed it last. A paper cover and napkins with Easter figures first claim the attention of the little folks. Looking further, they behold small cups for nuts and candies, covered with crepe paper and decorated with figure cut-outs.

For the jolly centerpiece, there is a large cardboard Easter egg and a bunny.

Supper may be creamed eggs or creamed chicken, lettuce sandwiches, cocoa, ice cream and fancy cakes.

As a finale, a large place of marshmallows is passed, and each child must take one with his teeth. The white powder which gets on the tip of the nose shows that he has now become one of the bunnies.

Little Folks' Corner

Tabby's Adopted Baby

Prize Story
THE pet I am going to tell of is not the queerest pet I ever saw, but was raised in a queer way.

Mother Tabby had two kittens, but one died when one day old. We buried it in a corner of the meadow. Mother Tabby seemed to be grieving for it and was searching everywhere for it, mewing continually.

The next day while Dad was cutting timber he found a nest of baby squirrels and brought one home with him. Of course we children were pleased with our new pet. We were wondering where to keep it when Mother said, "Why not let Mother Tabby have it in place of her dead kitty?"

We were almost afraid she would kill it, but watched Dad put it in the box with her and her baby kitten. She seemed pleased over it and made as much fuss over it as her own baby, so we left it with her.

We named the squirrel Frisky, and the kitten Trixie. They were great playmates, and we had fine times playing with them. We thought it fun when Mother Tabby would bring mice and rats in for the kitten and squirrel. Of course the squirrel didn't eat them and Mother Tabby didn't understand why.

One day Frisky climbed up on a store building in the yard, and Trixie who always tried to follow him, managed in some way, to get up on the building. When they grew tired of playing the squirrel ran down the side of the wall but Trixie couldn't do that. Dad had to put a ladder up and get her.

Frisky was a great favorite with

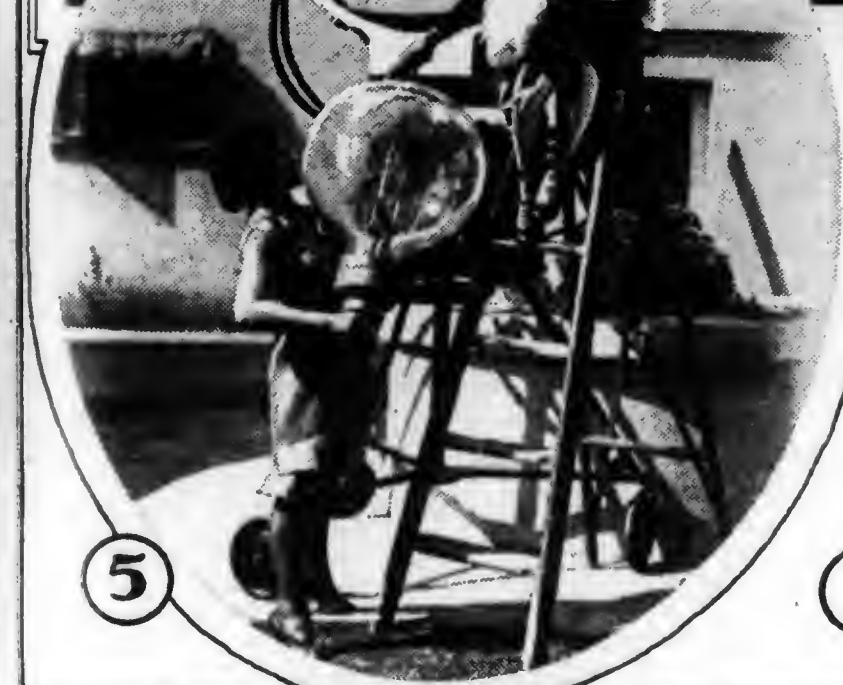
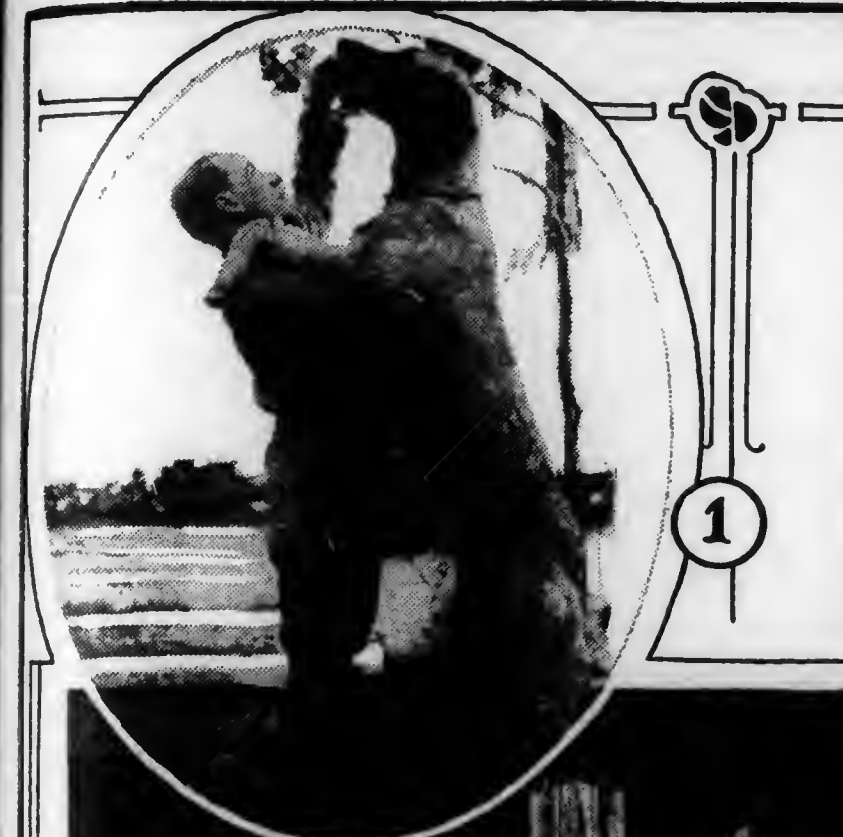


Sarah Anne is the small daughter of Mrs. Gertrude S. Stewart of the Household Department. This is her royal family—King Robert, Queen Anne, Princess Louise and baby Prince Robert II, all of the Stewart line.

every one. He would sit on a chair-back or sometimes on grandmother's head and eat nuts or bits of bread. Sometimes he would climb to the top of the window and sit there chattering as if in a tree in the woods.

Sometimes he would go to the woods, but always came back. One day a neighbor's cat was nuzzling, and Frisky, who thought all cats friendly, ran down to play with her, was killed and carried home by the cat. When our neighbor told us of it we were sad for we would never love another pet as much as we did Frisky. That same fall Trixie was killed in a trap which my brother had set in the woods. Billie Vannoy, West Virginia.

PASSING EVENTS IN PICTURES



1. Oakland, Calif.—Jack Donestall with his dog, Shanganagh, a Russian wolfhound, believed to be the tallest dog in the world. He measures eight feet when stretched up standing. He has turned down numerous movie offers.

2. Members of the National High School Orchestra who are on a concert tour of the East, play an informal recital for President Hoover at the steps of his office at Washington.

3. The Chief Executive and Senator Arthur Vandenberg of Michigan are seen at the right standing with hared heads as the orchestra plays the National Anthem.

4. Hans Swoboda, 20, recent student of architecture at Muenster, West Phalen, Germany, fitting the spire to his remarkable model of the Cathedral of Cologne, which is built of some 2,500,000 match-sticks.

5. The work took four years, and is called a perfect reproduction of the famous cathedral. It stands ten feet high without the base, and is now on exhibit at the Grand Central Art Galleries, New York.

6. Harvard's leviathan with the Varsity Head Coach Charles J. Whiteside and Freshman Coach Bert Haines instructing the crew as they pull up and down the river on the season's first workout.

7. Los Angeles, Calif.—The huge incandescent light bulb made by General Electric for

a motion picture studio. Ruth Roth and Lolita Vendrell are placing the world's biggest bulb in its reflector. Rated at 6,000,000 beam candlepower this is a 50,000-watt bulb, three feet in diameter and having a three-pound tungsten filament.

8. Los Angeles, Calif.—Photo shows an odd sight in a swimming tank at the Ambassador, which has temporarily been changed to a marine-dynamic laboratory.

Left to right, Racing Pilots L. E. Windolph, M. C. Martin and Al Thompson, going at full speed but standing still. Hawkers attached to their boats are attached to the ingenious recording apparatus which measures the "pull" of the boats.

(Copyright by Underwood & Underwood)

March 22, 1930



(Left) Mr. C. G. Niesley of Mechanicsburg, Pa., (right) with his helper, Mr. A. E. Armstrong, showing potatoes grown with "AA QUALITY" Fertilizer which paid \$250 per acre extra cash last season.

(Below) "I have \$22.75 per acre profit from my investment of \$2.25 per acre in 'AA QUALITY' Fertilizer," writes Mr. Jason Buchanan of Washington, Pa., whose corn, grown with "AA QUALITY" goods, yielded 85 baskets per acre.



\$250 Per Acre EXTRA CASH from Potatoes

MANY farmers have found a way to get real profits from their land. They work no harder than their neighbors; yet, when all expenses are paid, they have extra cash left over to purchase the comforts and conveniences everybody wants.

Take Mr. C. G. Niesley of Mechanicsburg, Pa., for example. Last season Mr. Niesley used "AA QUALITY" Fertilizer on 20 acres of potatoes. His crop yielded 125 bu. more than the average yield in his neighborhood, and will bring \$2 a bushel. That means \$250 extra cash from each acre of potatoes! Under date of Oct. 8, 1929, Mr. Niesley writes:

"I used 'AA QUALITY' this season on my field of 20 acres of winter potatoes, and dug an average of 275 bu. per acre, or about 125 bu. more than the average yield obtained in this section. The season was very dry and naturally all crops, including sugar, were cut short. Owing to the quality of my potato crop I expect to get at least \$2 per bushel."

Another Pennsylvania grower who gets extra cash by using "AA QUALITY" Fer-

tilizer is Mr. Jason Buchanan, of Washington, Pa.

50 Baskets More Corn Per Acre

Last season Mr. Buchanan made a test, planting part of his corn with "AA QUALITY" goods and part without fertilizer. The fertilized corn yielded 85 baskets per acre; the unfertilized, only 35 baskets. He writes:

"The fertilizer cost \$2.25 per acre. So, figuring that I got \$25 per acre extra out of my crop, which was what the 50 extra baskets per acre were worth, I have a profit from my investment of \$22.75 per acre."—Oct. 28, 1929.

Better crops reflect the extra quality of the plant foods used, the painstaking care with which "AA QUALITY" Fertilizers are blended, the longer curing period, the extra remillings. Throughout the growing season the strong healthy growth is apparent—and at harvest time there are big extra yields that mean extra cash. This year try "AA QUALITY" Fertilizers on your crops. There is a dealer near you. See him this week.

"AA QUALITY" Fertilizers

Manufactured only by

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Readers' Views

Women Drivers Speak Up

I SAW in your last week's issue a piece headed "Scores Women Drivers." I am a girl driver, have driven a car for six years. I have never run over any one. When I have a flat tire I get out and fix it, I don't stand and wait for a man to come and help. I never smiled at a cop, for I was never stopped by one. I can drive where any man can drive and do it just as well. I know lots of women who are also good drivers.

I am not noted for speeding, but I know some men who are, and I know some men who take more than their half of the road when you meet them.

Women pay the same for their license that men do and I think they have just as much right to drive.

S. R. T.

IN answer to the little item by S. W. I wish to say first I verily believe S. W. is an old bachelor; if not he sure has a bad case of indigestion and needs medical attention. No sane married man would have nerve enough to score the ladies so.

I am a woman driver and can repair my own tires when necessary and can also tinker with the engine enough to make the car run fine if it gets unruly. Ask no odds of any man when I get in trouble, and know lots of female drivers who can do as well, and not swear over the job either. Furthermore, I can drive up to a filling station without knocking things to pieces as I've seen some men doing.

Statistics show that three-fourths of the accidents on the road where so many are killed or wounded are caused by men drivers. And you very seldom hear of a woman trying to drive if she is intoxicated. She has too much sense to try, if foolish enough to get in that condition.

If S. W. would practice smiling before his mirror awhile, then try it on the cops when he is caught speeding maybe he too could get away with the speed act.

I am not an old maid, but a married woman with a husband who does not think the male sex knows it all.

P. M.

THE major portion of women drivers under my observation drive with respect for the law and traffic rules, using care in passing another motorist or pedestrian.

Nine out of ten accidents occur with a man clamping the wheel, and very often drunk.

S. W.'s statement in regard to women drivers giving the cop a smile in passing him to elude apprehension is not absolutely correct, for the cop does not want to halt any one who behaves himself. There probably are vast numbers of men who would if they could buy the cop off, only in a different way.

J. B. S.

Show Circuit Experience

Editor's Note.—Reading that one of the Master Farmers of 1929 cleared over \$3,000 in prize money on Berkshire in the show circuit, a subscriber wrote to ask how it was done. Ray Norman, the Master Farmer in question, answers the reader's questions below.

WE have been following a circuit of fairs several years, usually showing Berkshire hogs. Our best year, and the one referred to in the Pennsylvania Farmer, was in 1924, when we showed at the following fairs: Erie Exposition, Erie, Pa.; Ohio State Fair, Columbus, Ohio; State Fair, Timonium, Md.; Kentucky State Fair, Louisville; Tennessee State Fair, Nashville; Memphis Tri-State Fair, Chattanooga Interstate Fair, Southeastern Exposition, Atlanta, Ga.; Columbus, Ga. Fair, Georgia State Exposition, Macon, Ga., and finished up at the Southern Berkshire Congress Show, Pinehurst, N. C. Our total win-

March 22, 1930.

PENNSYLVANIA FARMER

(455) 27

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One of the most productive oats in the world and upward per acre are free.

These white, heavy grains, weighing 35 lbs. per bushel, of the highest quality, are exceptionally low price in quality.

Try all means try these oats. Also write for free seed catalog. Requested by mail.

Two, Eury & Sons

Box 50, Meigs, Ohio

STANDARD GARDEN TRACTOR

A powerful tractor for small farms, lawns, gardens, etc.

Tractor, mowers, and other implements.

DOES A MEN'S WORK.

Mowing & Riding Equipment

Free Catalog—Does Best Work

STANDARD ENGINE COMPANY

2421 Cedar Ave. 2425 Chestnut St. 164 Cedar St.

Philadelphia, Pa. New York, N. Y.

Standard Engine Company

Standard Engine Company

nings were close to \$4,000, and our expenses were around \$1,000 for three months.

I handled the herd alone, about twenty head, keeping a car fitted up all the time. My wife ran the farm alone, while I was gone, with one helper, who got to drinking and quit, leaving her with a bunch of freshening heifers to break in.

Incidentally, while I was showing in Georgia, my wife showed cattle, sheep, poultry and one sow at our home county fair, hauling them in our own truck and winning grand champion bull, champion sow, and on all along the line.

I do not know of any state fairs that are closed to out of state exhibitors. A few county fairs are, especially in the South. Pennsylvania has a great many county fairs, some of them offering very liberal premiums and under excellent management. Some of them are in all respects equal to other state fairs, and I think it strange that none is as yet designated as a state fair.

A good herd of hogs filling all classes can go out and win good money, but the circuits are harder now than a few years ago. All breeds of hogs have become more uniform, with better feet, and smoother, and all trending toward one type. For a while this type was extreme, but is now reaching a splendid medium.

It requires considerable skill to keep a herd in condition to win week after week. One of the most successful show herds of last season owned in Pennsylvania must have won well over the four thousand mark. There are lots of ups and downs in the game, when the boars won't eat, the pigs have the "flu," and the judge won't see them your way, but when you go in and bring out the purple it is a grand and glorious feeling.

Harford Co., Md. Ray C. Norman.

Technique of Laying Tile

OUR ditchers began laying tile the 21st of February. We put the tile on the ground during freezing weather to avoid trampling the ground in soft weather with teams and horses. In working around a ditch the soil is more or less puddled and the subsoil thrown out is packed. Subsequent freezing weather will break up this effect and leave the ground friable and easily worked. When the work is done late the ground along the line of the ditch remains cloddy and works badly all summer.

The workmen shave top soil from the sides into the ditch to firm the tile, holding them in place at once. We follow them, caving in the top soil with a spade from each side, so our trenches are practically filled with the looser soil from the first foot of depth. Later in the spring when dry the subsoil is thrown onto the line of the ditch, but remains near the top of the ground.

We require some perceptible opening at every joint. Most tile that we get are not exactly perfect and this often permits a crescent-shaped opening around the lower half of the joint. If the tile are true and inclined to lie too close at the joints they are spaced about the thickness of a penny. The deeper the tile are buried, the more free we wish the joints.

If the tile sizz when laid in a damp ditch they are porous and sure to expand some, in which case we require careful observation and more spacing if the expansion tends to close the joints. We have examined tile laid in dry ditches after a ditching machine in summer and found joints next thing to waterbound.

We always engage the best ditcher we know. As soon as the tile is on the ground Tom, Dick and Harry begin to call and ask for the job; but we never put any tile on the ground until we have first made a deal with a dependable grader. This costs us a bit more than ordinary diggers. Even with the best of ditchers we make a point to visit the job several times a day.

G. P. W.



MOVE SOUTH for profit and pleasure Let us tell you about it

The great Central South served by this Railroad offers many ideal locations for farming where you can live happier and save more money. Farm lands are productive and may be had at prices very much below those in the neighborhood in which you are now living.

Because of mild weather conditions, there is little idle time for southern farmers, every day in the year being a productive one, and, in many sections, crops ripening and going to market at all seasons and at good prices and profits.

There is plenty of water, plenty of labor, churches, good schools, good roads—flowers,

sunshine, and happiness for every member of your family. Use the coupon below and let us give you information about how you, as other northern farmers have done, can prosper in the South. We make no charge for this information or help—simply indicate the section, or sections, about which you would like information and specify the type of farming in which you are most interested.

The photograph at the top of this advertisement shows a dairy herd on the farm of B. B. Commer, Jr., of Sylacauga, Alabama.

The second picture is of a fine tobacco field in Henry County, Tennessee, and the one below shows part of a very profitable watermelon patch, grown near Graceville, Florida.

On a five year average of all states in the Union, Alabama and Mississippi tie for top mark of income on investment in farming, with return of 49c on each dollar invested. Louisiana is next, with 44c, and Georgia fourth, with 41c. Illinois and Iowa show a return of 13c. In other words, \$1.00 invested in Mississippi or Alabama farms and equipment produces the same return as \$4.00 invested in Illinois or Iowa.

This Railroad does not offer an acre of land for sale. There is no charge for this information, now or ever, and our agricultural experts will help you to find the farm you want, at the price you want to pay, and render you every possible assistance in locating and in building a profitable business.

LOUISVILLE & NASHVILLE R. R.

USE THIS COUPON

CARL B. JAMES, General Development Agent,
Louisville & Nashville Railroad, Louisville, Kentucky

I would like to have you tell me in detail about the opportunities for making more money, in the South. I am interested in line of farming indicated below and in the section, or sections, checked.

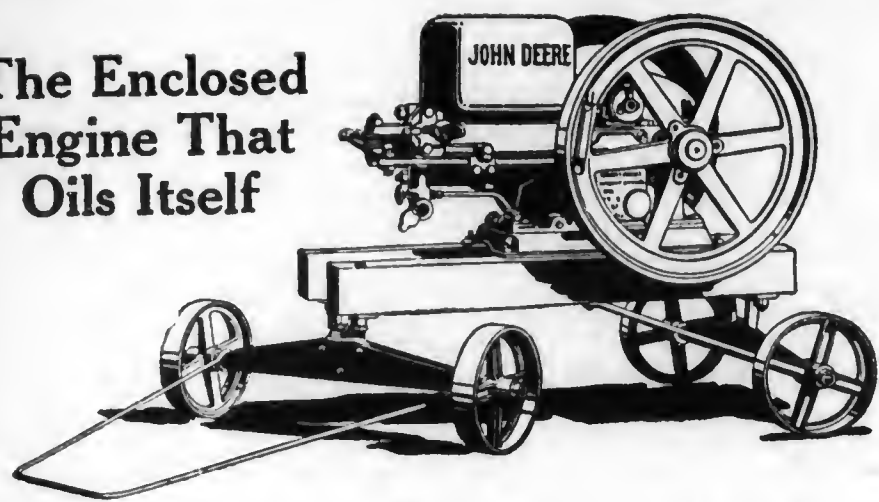
☐ Dairy Farming ☐ Live-Stock Farming ☐ Alabama (Northern) ☐ Mississippi (East)
☐ Dairy ☐ Fruit ☐ Louisiana (Southern) ☐ Tennessee (Eastern)
☐ General ☐ Kentucky (Bluegrass) ☐ North Georgia ☐ Western
☐ Garden Truck ☐ (Western) ☐ Northwest Florida ☐ Central

NAME

ADDRESS

P-3

The Enclosed Engine That Oils Itself



A Worker That Can't Be "Hired Away" From You

If you could get a "chore time" worker for just a few cents a day, that you could always depend upon to pump the water, shell and grind the corn, saw the wood, turn the washing machine, churn and separate the milk, all of your neighbors would be trying to hire him away from you.

You can get that steady worker in the John Deere Gas Engine. It will do all of those jobs—save you money and more time for other work, besides taking a big load off the womenfolk's shoulders. And it will stay with you, year after year.

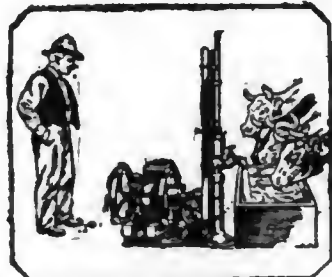
The John Deere is the enclosed engine that oils itself. Lubrication starts the moment the engine starts—just as in your automobile.

All vital parts are completely enclosed—protected from dust, dirt and weather. No exposed parts for clothes to catch on. Safe and easy to operate.

Three sizes: 1-1/2-, 3-, and 6-H. P.

Ideal Pumping Equipment

The John Deere Direct Drive Pumping outfit is a portable piece of equipment for any farm where a constant supply of water is of vital importance. This compact, self-oiling unit operates continuously without watching. Every ounce of engine power is coupled to the pump. No belts, gears or chains for stock to get into. Safe, dependable and economical.



See this time and labor saving equipment at your John Deere dealer's. Write John Deere, Moline, Ill., for booklet HW-736

JOHN DEERE

THE TRADE MARK OF QUALITY MADE FAMOUS BY GOOD IMPLEMENTS

PUBLIC SALE 30 Head REG. HOLSTEINS

LONE PINE FARM, Woodsboro, Md.
Farm 2 miles north of Woodsboro, Md., on the road from Woodsboro to Thurmont, Md., 30 miles south of Gettysburg, Pa.

MARCH 25, 1930 at 11 o'clock

—COWS, HEIFERS AND BULLS—

Herd Accredited. Herd in cow-testing association, records given sale day.

Herd sire—Sir Echo Sylvia Pledge Prospect, 4 years old, sire by Carnation Segis Prospect, 30 A. R. O. Daughters. He is a son of the World Record Cow Segis Pledge Prospect, butter 1,448 lbs., milk 37,381 lbs., 1 year. Her dam a Daughter of Sir Echo Sylvia Pontiac Paul, 25 A. R. O. Daughters, up to 1,600 lbs. butter 1 year, he by the best son of May Echo Sylvia, 41 lbs. butter, 1,005 lbs. milk 7 days. The cows trace to some of the best blood of the breed. King of the Pontiacs, King Segis Pontiac, Konigen, Woodcrest Paul, King Korndyke Sadie Vale Rag Apple, the great Daughters of the great Countess Rag Apple, a lot of heifers from 2 months to 2 years of age. Five young bulls, one out of a 4% cow who made 60.6 lbs. butter in 30 days. A great producing fine herd. Free of T. B. for 3 years. Terms Sale day, 10 pure-bred Chester White gilts, due to farrow May or June.

LONE PINE FARM,
H. E. Warkling, Woodsboro, Md.
S. E. Miller & Son, Mgrs.

COUGHS, COLDS

Dangerous complications can quickly develop if coughs and colds are neglected. At the first sign of trouble treat your horse with the old reliable

SPOHN'S COMPOUND

Praised by horse owners everywhere. Used by thousands for over 35 years. On sale at Drug Stores for 40c and 75c per bottle or shipped direct, postage prepaid. FREE SAMPLE sent on Request. Write today! SPOHN MEDICAL CO., Dept. S-5, Graham, Ind.

PLEASE say: "I saw you adv. in Pennsylvania Farmer."

How to Pick An Ensilage Cutter

THE man who knows machinery checks an ensilage cutter point by point as a good dairy judge scores a cow. Try scoring any cutter that interests you on these ten counts:

1. How big is the throat opening?
2. Has it enough fans to keep a STEADY stream going up the pipe?
3. Are the fan plates replaceable?
4. Is there any adjustment for the lower casing to take care of fan wear?
5. How fast does the cutter run?
6. Does it have a non-slip pulley?
7. What capacity is guaranteed and what capacity do Agricultural College tests show?
8. Is there anything to keep strings from winding on the shaft?
9. Is there anything to keep corn from packing back of the knives?
10. Where can I get repairs in a hurry?

Papec is the only cutter that can score a full 10 points on every count.

See your dealer or write us for a copy of the latest Papec Catalog.

Clip this ad and save it for future reference.

PAPEC MACHINE COMPANY
578 East Main St.
Shortsville, N. Y.



Hoffman Barley

Popular substitute for oats. Makes crop for starting Sweet Clover and Alfalfa. Six varieties including Wisconsin Redpolls, Spartan, etc. Ask for catalog.

A. H. HOFFMAN, Inc.,
Box 419, Landville,
Lancaster Co., Pa.

Farmer's Business Letter

THE grain markets continued to sag this week in spite of rather heavy buying at times by agencies of the Farm Board. Official statements are lacking, but it is estimated that the agencies of the Board now own about 40,000,000 bushels of wheat, and Mr. Legge has said that they might increase their holdings to 100,000,000 before the end of the crop season July 1. He has also issued a statement warning farmers that the Board has no intention of buying huge quantities of wheat with a view to removing the surplus unless farmers cooperate by reducing acreage. This is taken as a threat and tends to create resentment, for most farmers cannot afford to take the chance of letting acres lie idle.

In the meantime the Canadian situation is becoming worse rather than better. Canada is still holding almost the entire 224,000,000 bushels of wheat it had in storage November 30. The opinion is held in Canada that only crop failure or reduced acreage can relieve the situation, with not much prospect of the latter because the wheat growers of the prairie provinces are hard up and need a crop.

Weakness in Hogs
The hog market was weak and there was a sharp drop in prices at the close of the week. Average price for the week, however, showed a decline of only 5 cents from last week's average of \$10.55. A year ago the average was \$11.60.

The trade is uncertain about future hog prices, which probably explains light trading in the futures market. Only about twenty trades were made all week. Light hogs for April delivery ranged in the futures market from \$11.35 to \$11.30, for May delivery from \$10.85 to \$11.30, and for September delivery \$11.30; heavy hogs for April delivery sold at \$10 to \$10.50. Trading was at a lower level at the close of the week than early in the week.

Cattle Trade
The cattle market closed this week 50 cents to \$1 below the high time last week, all classes participating in the decline. The run, at 38,900, was moderate for the time of year. Demand for beef continued weak, and it doesn't take much to overload the market.

Top steers brought \$15.50 this week, that price being paid for some strictly choice bullocks averaging 1,730 lbs. They brought \$268.15 apiece. Yearlings sold up to \$15.25. Average price of steers was \$12.65 this week, against \$12.55 last week, \$12.85 a year ago, and \$12.75 two years ago.

Lambs Steady
Receipts of sheep and lambs were again liberal—87,000 here, against 77,000 a year ago and 56,000 two years ago. The market held well. Average price of lambs was \$10.60, against \$10.45 last week and \$17.05 a year ago. Some western feeders report that they are losing \$6 a lamb.

Top lambs brought \$11.65 this week against \$11.35 last week. Plenty of lambs are still to come, and there is nothing in sight to promise improvement in the market.

Chicago, March 15, 1930. Watson

Philadelphia Produce

Butter—Higher than extras, 28¢@41¢; 92 score, 36¢@37¢; 90 score, 35¢.

Eggs—Fancy select, 32¢@35¢; extra firsts, 27¢; firsts, 25¢; seconds, 23¢@24¢.

Poultry—Live fowls, 26¢@32¢; chickens, 28¢@40¢; old roosters, 21¢@24¢; pigeons, pr. 38¢@40¢; ducks, 22¢@28¢; turkeys, 25¢@30¢.

Fruits—APPLES, N. J., Md., Dela. & Pa., bu. baskets, 90¢@1.15; Bon Davis, \$1.25@1.50; Rome, \$1.50@2; Stayman, \$2@2.25.

Vegetables—BEANS, Fla., bu. hamper, refugees poor, \$2. BEETS, Pa. & N. J., 100-lb. sack, \$1.40@1.85. CARROTS, N. J. & Pa., 1/2 bkt., 50¢@75¢. POTATOES, Pa., 100-lb. sack, \$2.65@2.75. SWEET POTATOES, N. J., 1/2 bkt., 90¢@1.15. MUSHROOMS, Pa. & Dela., 3-lb. bkt., whites, 90¢@1.15. PARSNIPS, Pa. & N. J., 1/2 bkt. best, 50¢@65¢. RHUBARB, Mich., 5-lb. baskets, 90¢@1.15. SCALLIONS, N. J., 100 bunches, \$1.50@2. TURNIPS, Pa. & N. J., 1/2 bkt., white, 25¢@60¢.

NEW YORK
Butter—Creamery, higher than extras, 28¢@33¢; firsts, 34¢@37¢; seconds, 30¢@33¢.

Eggs—White, nearby, average extras, 28¢@30¢; extra firsts, 28¢@29¢; mediums, 27¢.

Poultry—Live, by freight, fowls, 31¢; old roosters, 19¢; geese, 16¢; ducks, 22¢; turkeys, 25¢@28¢.

PITTSBURGH
Eggs—Nearby fresh, new cases, 26¢@28¢; extra fresh, new cases, 26¢; 26¢; nearby hennerly whites, 26¢@27¢.

Butter—92 score extras and standards,

40¢; 89 score, 37¢; 88 score, 34¢; prints and rolls, 1¢ higher.

Poultry—Hens, heavy, 29¢; medium, 28¢; Leghorns, 27¢; old roosters, 18¢; stags, 22¢; geese, 16¢@17¢; ducks, 22¢; pigeons, 40¢@50¢ per pair.

LIVESTOCK

PITTSBURGH

Cattle

Receipts continue light, only 25 carloads appearing for Monday's trade. Demand for steers was anything but urgent, slaughterers saying that cattle bought on western markets were cheaper than those bought here lately. All bids for good fat steers were lower and they finally sold at a decline of about a quarter. Very few were required to command \$13. Good fleshy steers with weight enough brought \$12.50@12.75, and useful killers \$12@12.25. Ordinary light butcher steers were scarce and firmly held, selling at about former prices, \$11@11.50 for only fair to decent butchers kind, a few other light steers up to \$12 or a little more. A few ordinary light steers brought \$10.50@10.75, some at the latter price going out to graze. One load of weighty and well wintered West Virginia steers brought \$12 for grading. Heifers were scarce and steady. Fat cows showed little change, few good enough to sell above \$8.50. Canners sold mainly around \$5. Bulls were a little stronger, with good butcher kind \$9@9.25 and ordinary bolognas \$8@8.25. One choice young butcher bull of 1,270 lbs. brought \$10.50.

Prime fat steers \$13.00@13.25
Choice steers, 1,500 lbs. or over \$12.50@12.75
Good to choice, do. \$12.00@12.25
Fair to good, do. \$11.50@12.00
Plain heavy steers \$11.50@12.00
Choice handy-weight steers \$12.75@13.00
Good butcher steers, 1,000 to 1,150 lbs. \$12.25@12.50
Fair to good, do. \$11.75@12.25
Ordinary to fair, do. \$11.00@11.50
Common, do. \$10.50@11.00
Good light butcher steers \$12.00@12.25
Fair to good light steers \$11.50@12.00
Common to medium, do. \$10.50@11.25
Inferior light steers \$10.00@11.00
Feeder calves, 600 to 700 lbs. Nominal
Stockers Nominal
Choice fat heifers \$11.00@11.25
Good to choice heifers \$10.50@11.00
Fair to good heifers \$10.00@10.50
Common to fair heifers \$9.50@10.00
Choice fat cows \$7.50@9.00
Good to choice fat cows \$7.00@8.25
Fair to good cows \$6.50@7.50
Fair to good cow \$5.50@6.50
Canners \$4.50@5.25
Fresh cows, calf at side \$6.00@10.00
Choice heavy bul. \$9.00@9.25
Choice handy butcher bul. \$9.00@9.25
Good handy bul. \$8.50@9.00
Fair to good bul. \$8.00@8.50
Common to fair bul. \$7.50@8.00
Inferior bul. \$6.50@7.50

Hogs

Last week's hog market slumped in the face of light receipts and a fair demand for hog meats, top hogs closing at \$11.25 here. Monday's supply was light, around 25,000 head, and the market was a little higher at \$11.35 but buyers showed no improvement. Western markets offered 300-pound hogs at \$9.50@9.75 and extreme weights here might not bring quotations. Some good hogs of close to 300 lbs. brought \$10.35 but not many of such weights appeared and few were wanted. Those of around 250 lbs. would sell at \$10.65@10.75. Heavy mixed lots ranged downward from \$11. Bulk of the light hogs went at \$11, a few \$11.25 and the best of them went in with heavy heavy weights. Good ones brought \$9.25 and some heavy stags \$9.75.

Sheep and Lambs
Most of the 16 carloads on sale on Monday were clipped. The market lacked snap and sheep were about steady while lambs were lower. Best clipped handy wethers brought \$6.25 and that was generally regarded as the basis for sheep. Woolled wethers were nominally \$7@7.25. Best woolled lambs brought \$11 per cwt. and looked cheaper than clipped lambs, but best of which sold at \$10. Bulk of the supply consisted of clipped lambs, which ranged from \$7 to \$10 per cwt., the latter generally \$7@8. A few spring lambs and some good ones were offered. Choice wethers, good ones, would probably command more than how much nobody knows.

Clipped
Good to best wethers \$6.00@6.25
Good mixed \$5.00@5.50
Fair to good, do. \$4.00@4.50
Common to fair \$3.00@3.50
Inferior sheep \$2.50@3.00
Good to best lambs \$5.00@5.50
Medium lambs \$4.00@4.50
Culls and common \$3.00@3.50
Woolled sheep \$4.00@4.50
Woolled lambs \$3.00@3.50

Monday's supply was about 60,000 head. Real calves went at \$15 per cwt., onds at \$11@12.50 and others at \$7@9.

Philadelphia Produce Review

THE Philadelphia egg market opened with somewhat higher prices. These were probably due in part to firmer western advices. Some questionable stock was offered at slight concessions but the average quality stock was held firm. Supplies were fairly liberal and under the satisfactory demand arrivals were closely cleared. Buying interest slackened slightly on Tuesday and advances were checked. As the week progressed slight accumulations were noticeable but not burdensome.

The egg market in New York was irregular with liberal receipts and a free movement into storage. Offerings of nearby white eggs were ample with some good marks of New Jersey eggs available at 32c. Nearby white eggs ranged from 25¢@32¢ per dozen, brown eggs from 27¢@31¢ and mixed colors from 22¢@29¢.

Butter and Poultry

The butter market was firm during the week with receivers reporting a fairly satisfactory clearance of goods. As the result of this closer clearance of arrivals prices were generally one cent higher than at the close of the previous week; further advances of one-half cent to a cent were reported later in the week. Trading was more active with buyers operating with more confidence. The demand for storage butter which has been negligible improved and considerable storage butter changed hands. The southern crop is reported as making good progress with favorable growing conditions.

W. R. W.

Two Weeks of June in February

(Continued from page 8.)

nation's capital. It was Mr. Phillips of the Seaboard whose careful work for weeks before the tour started was largely responsible for our smooth-running schedule.

I wish I could paint a life-like word picture of the 132 congenial members of the tour party proper, of the railroad officials who rode with us or met us along the line, of our good friends the Pullman conductor and the dining-car stewards, of the good-natured Pullman porters and dining-car waiters, and of the great host of hospitable people who met us wherever we went, carried us in their automobiles and asked us to "come again and stay longer."

I should like to tell about the country we visited, where nearly everything was new and strange to us northerners. "It gets more different and more interesting every day," was a common remark.

And I wish I might describe the good times we had on the train. There are trouble-makers in the world, I suppose, but none of them was on the Pennsylvania Farmer Special. Every-one was friendly with everyone else.

That did more to make the trip pleasant than any amount of interesting scenery. Moreover, the members of our party made friends, created a good impression and won respect wherever they went. If the tour was a success, they themselves made it so.

It would be easy to write columns more about our tour party and the things we saw and heard and did. But, as I said last week, this is written at the request of tour members who wanted to make their stay-at-home friends feel bad about the good time they missed. If the stay-at-homes are miserable enough. But if they want more punishment they can get it by coming to the reunion the tour party already is planning to hold at Gettysburg next summer.

The members of the tour party were:

W. L. Barnhart, Sr.; Frank C. Bau-croft and wife; J. L. J. Bailey and wife; J. B. Elcker and wife; John Biedenhapp; Solomon Billman and wife; S. H. Bishop; Mrs. Margaret Black; A. S. Blackburn; Peter R. Briggs; Mrs. H. P. Bowser; Wm. T. Bunting and wife; Warren K. Clouser and wife; J. E.

brought 27¢@30¢ per pound, chickens 26¢@27¢, broilers 25¢@45¢ and capons 37¢@40¢. Dressed hot-house broilers were in light supply and fancy stock sold readily. Much of the stock was poorly graded and unattractive sold slowly at low figures.

Pennsylvania, New Jersey, Maryland and Delaware apples arriving by truck in Philadelphia were moderate in supply. The best Romans sold at \$1.25@1.25 per bushel, Stayman at \$2@2.50, Yorks, Nero and Black Twig at \$1.25@2 and Ben Davis at \$1@1.50. Poorer stock of all varieties sold as low as 75c. It is becoming more difficult for buyers to get stock free from scald.

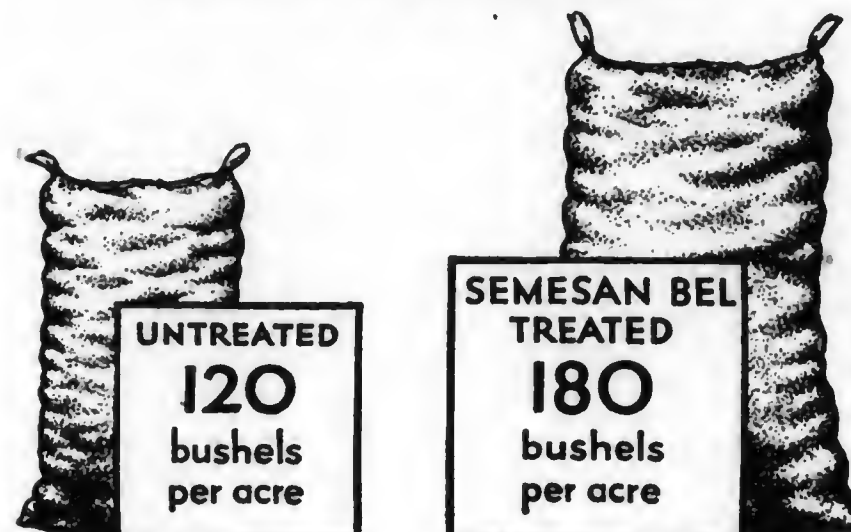
Potatoes Tend Lower

Prices of potatoes tended lower in the East this last week. Philadelphia which led the Eastern markets the previous week experienced a decided slump. The better condition of the market at that time encouraged dealers and considerable high priced stock was purchased f. o. b. This stock arriving this week on an unsettled market forced prices lower. Shipments from Maine, Minnesota and Wisconsin were active.

Prices generally declined 5 cents to 15 cents per 100 pounds at both city markets and shipping points. Growers in the Rochester district of New York were receiving generally \$1 per bushel, compared with the prevailing range of \$1.10 early in the month. The southern crop is reported as making good progress with favorable growing conditions.

W. R. W.

60 BUSHELS more potatoes per acre by INSTANTANEOUS dip seed treatment



In Maryland, Daniel Leasure increased his potato yield 60 bushels per acre by Semesan Bel seed treatment.

Semesan Bel saves time and labor Controls seed-borne diseases Improves quality and yield

It costs just as much to plow, harrow, plant and cultivate an acre that yields a paying crop of potatoes as it does for one which yields a poor crop. In either case you must plant the same quantity of seed per acre, and put in the same amount of labor in your field. So anything you can do to increase your yield will also increase your profit at harvest.

Daniel Leasure, of Maryland, wanted a bigger potato yield—and got it. He knew what to do. By treating his seed potatoes the quick, easy way with Du Bay Semesan Bel he not only prevented seed-borne disease losses, but actually increased his yield 60 bushels per acre.

Easy dip treatment

Besides being dangerous to sprouted seed potatoes, old-fashioned liquid soak treatments mean a waste of time and labor. When these messy methods are used to control potato diseases the seed must be soaked from an hour and a half to two hours.

Semesan Bel now reduces the tedious two hour job of treating seed to practically nothing. All you do is dip the seed potatoes the quick, easy way with Du Bay Semesan Bel. One man alone can easily treat as much as 400 bushels of seed potatoes a day by this quick, modern method.

Treatment increases yield

Because Semesan Bel destroys scab, rhizoctonia and black leg organisms on the surface of seed potatoes and thus stops development of diseases, this quick dip treatment increases yields and improves crop quality.

Carl E. Randolph writes from Maine:



SEMESAN BEL

REG. U. S. PAT. OFF.

Instantaneous Seed Potato Dip

CERESAN for Seed Grains and Cotton

SEMESAN for Flowers and Vegetables

SEMESAN JR. for Seed Corn

ADVERTISERS in Pennsylvania Farmer want your business. They want to give you satisfactory service and aim to please you. When writing advertisers, tell them where you saw their advertisement. You will do them a favor, as well as help yourself and Pennsylvania Farmer.

Zeller's Extra Quality
PURE-BRED CHICKS FROM PURE-BRED STOCK
S.C.W. Leghorn Chicks
PENNA. STATE CERTIFIED AND BLOOD TESTED
Flocks culled and tested by state officials.
All matings headed by 200 to 250 egg males.
2400 eggs, 5 lb. hens. Real money-makers.
\$10-100: \$17-500; \$100-1,000: 10% books order.
EDGAR A. ZELLER
2014 Manada St., Harrisburg, Pa.

CHERRY HILL CHICKS

Per 100
S.C. White Leghorns—Wyckoff Str. \$12.00
S.C. Brown Leghorns—Evelay Str. \$12.00
Barred Rocks and R. I. Reds 14.00
Heavy Mixed 11.00
Light Mixed 9.00
5c less per chick in 500 lots. 1c per chick in 1,000.
For less than 100 chicks and 2c per chick. 100% live
arrivals guaranteed. Parcel post prepaid. Bank reference.
Order direct from this ad. 2c write for free circular.

CHERRY HILL POULTRY FARM
Wm. Nace, Prop., Box P, McAllisterville, Pa.

Barred Rock CHICKS

A large modern breeding farm and hatchery do-
ing custom breeding and production of BARRED
PLYMOUTH ROCKS.
MARVEL POULTRY FARM, Georgetown, Del.

Quality Baby Chicks

From healthy, high egg record free range flocks
We offer chicks for season 1930 of the following
breeds: Barren White Leghorns, Barred and White
Rocks, S. C. W. Leghorns, Black Minorcas,
White, Silkie and Columbian Wyandottes, Buff
Orpingtons, Black Game, Sussex and Hamburg.
Prices reasonable. Catalog Free.
THE LANTZ HATCHERY, Tiffin, Ohio
Ext. 1905, Box 5.

BABY CHICKS

| CASH or C.O.D. | 50 | 100 | 500 | 1,000 |
|-------------------|--------|---------|---------|----------|
| S. C. W. Leghorns | \$6.25 | \$12.00 | \$57.50 | \$110.00 |
| B. & W. Rocks | 7.25 | 14.00 | 67.50 | 130.00 |
| S. C. R. I. Reds | 7.25 | 14.00 | 67.50 | 130.00 |
| Heavy Mixed | 6.25 | 12.00 | 57.50 | 110.00 |
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Heavy Mixed
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BABY CHICKS

| | | | | | |
|-------------------|--|----|-----|-----|-------|
| S. C. W. Leghorns | 25 | 50 | 100 | 500 | 1,000 |
| B. & W. Rocks | \$4.00 \$8.00 \$40.00 \$80.00 \$160.00 | | | | |
| White Leghorns | 3.75 7.50 37.50 75.00 150.00 | | | | |
| Assorted Chicks | 3.75 7.50 37.50 75.00 150.00 | | | | |

Guarantee 100% Live Arrival
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BABY CHICKS

| | | | | | |
|-------------------|--|----|-----|-----|-------|
| S. C. W. Leghorns | 25 | 50 | 100 | 500 | 1,000 |
| B. & W. Rocks | \$4.00 \$8.00 \$40.00 \$80.00 \$160.00 | | | | |
| White Leghorns | 3.75 7.50 37.50 75.00 150.00 | | | | |
| Assorted Chicks | 3.75 7.50 37.50 75.00 150.00 | | | | |

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| Heavy Mixed | 12.00 |
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When you avoid baking failures you're halfway to real baking success—but only halfway. There's something else, just as necessary.

Of course, avoiding failures is important—so important that Pillsbury's Best Flour is constantly tested, by daily baking, by every scientific method known, to make sure that it will never fail you—that every sack will work perfectly for any baking purpose, bread, biscuits or pastry.

But there's something else that deserves consideration—a kind of success that is more than a matter of dodging failures. Haven't you noticed sometimes that one baked food tastes just a little better than another—although there's no particular difference in their appearance? That's the secret of this higher type of baking success—*perfect flavor*, the mark of the real artist. There's no mystery about it. Simply choose

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Here is something really worth having—the certainty that your flour will never cause a failure, and, more than that, the knowledge that everything you bake will have that delicate, unmistakably richer flavor that is the mark of really fine baking. All good grocers have Pillsbury's Best Flour—ask for it by name—for better flavor and more certain success in all your baking!



LEMON MERINGUE PIE
1½ cups boiling water 3 eggs
1½ cups sugar Juice of 2 lemons
5 tablespoons Pillsbury's Best Flour ½ teaspoon salt
1 tablespoon butter Grated rind of half a lemon
Mix the Pillsbury's Best Flour and sugar together, and add to the boiling water, stirring constantly until the mixture thickens. Add the butter, salt, lemon juice and rind, and pour the mixture into the egg yolks, well beaten. Return to the heat and cook for two minutes. Transfer to a baked pie shell and cover with a meringue made by beating the egg whites stiff together with three tablespoons of powdered sugar and one-fourth teaspoon of lemon extract. Bake in a slow oven, 325 degrees F., until the meringue is a golden brown—about ten minutes.

HOT WATER PIE CRUST
1 cup Pillsbury's Best Flour 5 tablespoons shortening
1½ teaspoon salt 3 tablespoons boiling water
¼ teaspoon baking powder

Sift the dry ingredients together and cut in the shortening with a knife, keeping the mixture flaky. Add the boiling water, stirring quickly and lightly together. Transfer to a board dusted lightly with Pillsbury's Best Flour and roll to one-eighth inch thickness. Fit over a pie plate, prick the surface with a fork to allow the air to escape, and bake in a hot oven, 400 degrees F., about twelve minutes.

Recipe furnished by Mrs. Ida Bailey Allen, President of the National Radio Home-Makers' Club.

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March 29, 1930



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DIP...

and
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Treat seed potatoes with Semesan Bel
Saves time and labor
Increases yields

Time spent treating seed potatoes by old-fashioned, mussy soak methods to control surface seed-borne diseases, is time wasted. When such treatment methods are used, every lot of seed must be soaked from an hour and a half to two hours. The job is slow and tiresome. Sometimes severe seed injury occurs during soaking.

Now you can treat your seed potatoes instantly, easily, safely! By using Du Bay Semesan Bel, the instantaneous dip disinfectant, you can do the old two-hour job of seed treatment in 10 seconds or less. Just dip your seed potatoes, and plant. That is all! No soaking, no risk of seed injury, and no costly equipment necessary. With this quick method, one man alone can easily treat as much as 400 bushels of seed potatoes a day.

Increases yield per acre

Because Semesan Bel dip treatment of seed potatoes destroys surface-borne infections of Rhizoctonia, scab and black leg, better field stands and bigger yields result from seed which has been given this protection.

A report in the January (1930) issue of *Phytopathology* shows that Semesan Bel treatment of clean seed produced an increase of 58.2 bushels per acre in 1928 Maine tests. When tested on diseased seed during 1926 and 1927, this instantaneous dip gave an average yield increase of 53.6 bushels per acre.

Practical growers also report highly profitable increases through Semesan Bel seed treatment. Daniel Leasure, a Mary-

land farmer, obtained a yield increase of 60 bushels an acre. From Maine, A. H. Christie & Son report that their Semesan Bel treated seed outyielded untreated seed 5 barrels per acre and produced 7 barrels more per acre than corrosive sublimate treated seed.

In New York tests, Semesan Bel treatment gave a yield increase of 20% on early potatoes and an increase of 15% on late potatoes.

Certified seed needs treatment

Do not think seed is completely free of disease, because it is certified. Dr. Wm. H. Martin, of the New Jersey Experiment Station, said in the *American Produce Grower* that there is no state which does not permit at least 10% of scab and Rhizoctonia in certified seed.

By treating all your seed with Semesan Bel, you can guard your crop against these diseases.

Improves sweet potato yields

Semesan Bel treatment also improves sweet potato yields by controlling surface-borne black rot and scurf or soil stain. Just treat the seed and dip the sprouts before setting.

Economical, easy treatment

One pound of Semesan Bel will treat from 16 bushels of small seed to 22 bushels of large seed potatoes. So it costs little when applied easily according to simple directions. Ask your dealer for the free new Semesan Bel pamphlet. Or write Bayer-Semesan Company, Inc., 105 Hudson St., New York, N. Y.



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Instantaneous Seed Potato Dip

CERESAN for Seed Grains and Cotton SEMESAN for Flowers and Vegetables

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Certified Seed Potatoes

Can make 200 to 600 bushels per acre—because northern grown from carefully bred, high-yielding strains; because from fields reported by inspectors either free of disease, free of insecticide and fungicide, stored at proper temperatures and humidity. Write for prices and free catalog of these and other certified seeds.

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ANY LENGTH
10' to 20' WE PAY
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HARDWOOD RUNGS - BEST MATERIALS
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Farm Facts and Fancies

By ALVA AGEE

I HAVE not seen the article, to which a subscriber refers, in which a director of the St. Louis livestock exchange suggests to Chairman Legge, of the Federal Farm Board, that the farmers be financed to manufacture farm machinery, and to distribute at cost, and to cut out all middlemen. I don't know whether the suggestion was made seriously or only as a drive at the manufacturing corporation Mr. Legge built up. Be that as it may, it is not in line with the thought of many that the farmers are wards of the nation? Do we really like any such relationship?

The government rightly controls the nation's credit machinery, and it is its duty to provide credit facilities, as far as a sound business basis exists, for all. Making sure that every industry, including agriculture, has all the credit it can safely use, and being concerned in respect to markets, as it is for manufacturing interests, its only further business is to see that fair play prevails. That is a broad field and the government doesn't get all of it covered, but farmers are not wards among a free people. All that is wanted is a square deal and not anything that smacks of charity or guardianship. The government will have plenty to do if it insures a square deal for all its people.

Protection of Rights

We shall hear much of the United States Supreme Court during President Hoover's term of office. It probably will come about that a majority of the judges in this court will be appointed by him. Resting upon the Constitution, we have three coordinate bodies in our national government.

The Congress legislates, the Supreme Court decides what is constitutional and what is not, and the President is the executive. He appoints these judges with the assent of the senators, and then the judges, who are appointed for life, are our protection that no constitutional liberties are taken from us.

Some conservative senators would like to see men of conservative tendencies named for the bench, and some liberals would like to have more liberals as justices of the Supreme Court. The question was not one of honor and ability, in the case of Mr. Hughes, but of natural bent and attitude, and doubtless it will be so in the case of all others whose names are sent in for confirmation, as time goes along.

Levying Taxes

A thing may be constitutional and legal and at the same time unjust. The various states retained their right to levy taxes in many different ways. Where I now am living I pay only one mill tax on the dollar on money in bank at the taxing date, two mills on the value of securities, and between six and seven cents on each dollar of appraisal of real estate and household goods. The appraisal is supposed to be only a half of market value, but it is much higher in many instances. This peculiar state of affairs comes about through the desire of the state to attract wealthy men and lead them to declare citizenship in the state.

Some people urge the need of uniform taxing laws for all the states, but the United States has only the rights that the individual states surrendered when the Constitution was adopted, and as it has been amended from time to time. It is idle to expect a state to give up its present right to do as it pleases in respect to taxation, except as certain surrendered rights are concerned. Uniformity among the states appears an impossibility. We cannot achieve fairness in taxation, and there is a wide margin for improvement between a rate

of one mill and a rate of sixty or, say, thirty to forty.

Dependable Branding

A marketing official writes: agree with you that in the case of potatoes there should be some way of indicating the percentages of different sizes in the container on tag or container itself. However, it is difficult to work out a practical method of doing this. I am wondering if the solution of this problem is going to come when we adopt branded consumer-sized packages.

It is easy to criticize, and I think that most criticism is partly formed. We have earnest officials trying to work out these grading and branding problems, and a layman does not appreciate all the difficulties. On the other hand, the consumer does not like to see the brand "U. S. No. 1" on a container of potatoes that were not fitted by nature to supply a demand for a number one article, and he thinks something should be done about it. A statement regarding sizes, as suggested by our correspondent, would be helpful to buyers but the difficulty lies deeper.

A practical man knows that a lot of undersized and unattractive potatoes can be put over a grader, and diseased tubers removed by hand, to a product secured that can get by far as regulations go, and yet is from being attractive to the consumer when he empties the container. Present regulations are right enough for a crop of good potatoes, and a crop of poor potatoes needs branding from any effort to quality as "No. 1" stock.

Now, I may be told that I am talking about something that is impracticable, and possibly I am. Could brand "U. S. No. 1" be confined to use on good stock, while graded potatoes that lacked size and smoothness as determined by an inspector's examination, be limited to the use of some other brand? There should be some way of making "No. 1" what the man on the street supplies that it means.

A Welcome Book

Dr. Charles E. Thorne, whose during monument is the Ohio Experiment Station, is the author of a book of great value to practical farmers and students of soil fertility problems. Its title is "The Maintenance of Soil Fertility," and it is an interpretation of the facts regarding the that experiment stations have developed.

We needed a summing up of truth, with the right emphasis on part, that Doctor Thorne possesses the training and experience to give. There would have been a serious if this book had not been written. Usually careful, cautious and conservative, the author speaks with clearness and decision because his facts lead him to know. "The Maintenance of Soil Fertility" is published by Orange Judd Company, New York City.

Bulletin on Whitewash

In a great many cases sheds, houses and fences are made of stone or rough lumber. While it is difficult to paint these with oil paint they can be whitewashed quickly and at small cost.

The uses for whitewash are many and it is best to apply the material especially developed for each particular condition. In order to assist the public to procure the best products, the National Lime Association, of Washington, D. C., has prepared Bulletin No. 304-B entitled, "Whitewash and Cold Water Paint," which contains eleven different mixtures under varying conditions and be sent to any one on request.

The Mystery of a Seed

SEEDS are unique in the plant world. When a plant has completed its life history and is about ready to die it forms a minute plant and tucks it away in the seed accompanied by sufficient food to start its germination and to support the little plant until roots and leaves are grown sufficiently to prepare additional food for the continuation of its growth and development into a mature plant.

If one will consider the great potentialities contained in the tiny seed and the importance of planting that seed in good, fertile soil with proper moisture and temperature conditions so that those potentialities will be fully developed he cannot fail to see that both factors, inheritance and environment, are absolutely essential.

Change the soil, the water, the temperature and the light conditions as you will and still the tiny acorn will grow into a kind of tree that every one will recognize as an oak. Never will an acorn make a mistake and produce an elm, a pine, or maple tree.

After Forty Years

Fifty years ago Doctor Beal of the Michigan Agricultural College buried twenty-two different kinds of seeds. These seeds were placed in uncorked bottles of moist sand. The bottles were then buried twenty inches deep with the mouth of the bottle turned downward so that they would not fill with water and would still retain some moisture. After they had been buried 40 years he found that ten of the twenty-two different kinds of seeds retained their vitality and grew when placed under favorable conditions for germination.

On the other hand many seeds may lose their vitality soon after they have matured. Their length of life depends on the kind of seed coat, the conditions under which they matured and especially upon the storage conditions. If seeds mature in moist weather and are not properly dried before being stored, the little plant may mold or freeze if the temperature is low, or may even begin to grow before being planted.

The little plant within the seed is so tender and so easily damaged that many things may happen which will destroy it. In nature provision has been made for this great mortality by producing seeds in great abundance.

Necessary Factors

One cannot determine the quality of seeds by their appearance. The seed may look fine but something may have happened to kill the young plant within. Therefore farmers and gardeners should select and test all seeds with great care. If ten out of every one hundred seeds planted are bad, then one can expect only a ninety per cent stand and, other factors being favorable, only a ninety per cent yield.

With our leading crop like corn one scarcely realize that only a slight improvement in the quality of the seed planted will mean an enormous aggregate increase in the crop produced.

Let us remember that one of the factors necessary to have a fine flower and vegetable garden and to raise good field crop is the planting of seeds of good quality. Begin now to make your selections and to test the seeds. This factor is under the control of the gardener and the farmer. The second factor, that of favorable environment, is not always so easy to control. We are sometimes obliged to plant seeds in soil that is not very fertile, nor do we have perfect control over the amount of moisture, the degree of temperature and the intensity of the sunshine.

In addition to the above factors, let us remember that the soil contains many of these long-lived weed seeds. Some of these are going to grow in your garden next summer. Clean cultivation will assist your flowers and vegetables and field crops very much in their struggle for existence against the hardy weeds.

E. M. Gress.

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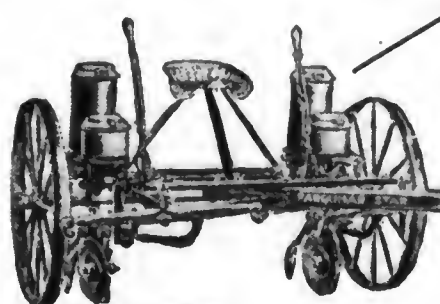
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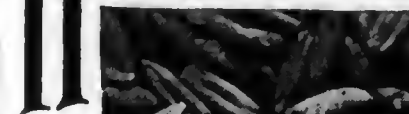
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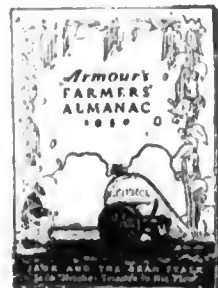
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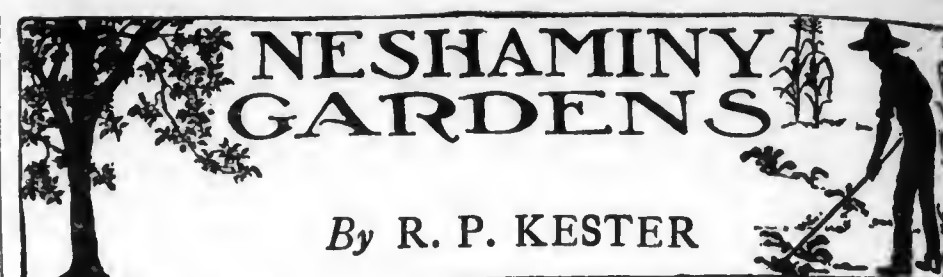


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I MENTIONED the fact some time ago that nothing would give me greater pleasure than to be able to join the Pennsylvania Farmer's Southern Tour, but that several things, any one of which was sufficient, prevented me from doing so. But I received a letter from one of my old friends and neighbors in Clearfield county which is so interesting to me that I pass it on. It shows us who did not take the trip what we missed.

".....My wife and I were hopeful that we might meet you and Mrs. Kester at Washington on the Pennsylvania Farmer tour. It was the most indescribable event in our lives. The crowd was like one big family, including Mr. White and Mr. Harris of the Pennsylvania Farmer force, and Mr. East of the Pennsylvania Railroad and Mr. McBride of the Seaboard Airline. Of course it is impossible to remember all the names, but some associations we made, I think, were lasting.

"The trip to Havana was delightful; it being our first voyage on a ship. This was one of the most fascinating experiences of the trip to both of us. Then there were the Penney Farms and the varied productions, Silver Springs, Plant City, Bradenton, Sarasota, the celery fields, the extensive tomato acreages, the wonderful groves of oranges and grapefruit.

"There are many beautiful homes in St. Petersburg, Palm Beach and Miami. We were interested in the Everglades, and the sugar cane fields and the sugar mills at Clewiston on Lake Okechobee where the great disaster occurred in 1928. The ocean was calm on the trip both ways, and the rocking of the boat brought to mind the lullaby time of my life more than sixty years ago.

"There are markers erected in commemoration of Columbus, and reminders of the awful tortures inflicted by the Spanish during their rule. There are evidences of much wealth, shown especially in public buildings, the Casino and the 160-acre cemetery.

"In Florida we were shown the greatest hospitality, and were met at all points with conveyances and a warm welcome. We were feasted far beyond our capacity. Every one of the ten days was just filled with sunshine, literally and poetically. If any one wishes to duplicate 'Butch' McDewitt's experience of being a 'millionaire for a day,' just let him get under the banner of Pennsylvania Farmer and its wonderful crew....."
William T. Thorpe.

A READER in Cumberland county, N. J., wants to know if newspapers could be used as mulch paper, and whether there would be any danger from the ink on them. Newspaper, if kept in place, would serve every purpose as long as it lasted. Some have tried it out in a small way with satisfaction. Owing to its size I do not believe it could be used extensively because it would be difficult to fasten it down on all edges so as to keep the wind from blowing it off. There is nothing to fear from the ink.

I HAVE received an interesting letter from a woman in Pike county who wishes to call my attention to the medicinal value of smart weed. She noticed that I had said its value as a preferred pasture for Japanese beetles was the only redeeming virtue of this pest. She wants me to know (and to pass it on) that there is nothing to compare with it as a remedy

for sore throat when made into a strong tea and drunk freely. And also that it is a sure cure for diphtheria if the leaves are steeped in vinegar. In addition, she states that the cells are filled with honey, hence it is excellent source of supply for bees.

Well, I am glad to know that this pestiferous weed has more than one redeeming quality. But I do not want any one to risk this or any other home-made concoction in the case of diphtheria. With all deference to the age and wisdom of the correspondent, I must question the statement that it is an infallible remedy for this curable of childhood. If there is any suspicion of diphtheria, send at once for the best doctor in the community. But you may test out the other recommendations to your heart's content. I believe, also, that a strong decoction made from it might serve as a substitute for some of the "hootch" of modern times, judged by the smell of the home-made stuff.

Friendly Talks

By Edgar L. Vincent

IN my lifetime I have heard of a few men who said they never had a word of trouble with anybody else. But I have thought that if we could have followed those men along at their lives it might be—mind, I do not say it would be—but it might be the first or last between men, and especially between neighbors, there has been a ripple of dissension, some little breach that had to be healed over some place where folks thought the toes had been stepped on, and there had to be a "conference" between the parties concerned before all would be as it was before.

And the question is, what do we do when such rifts come? How do we meet the difficulties? With bouquets or with icicles? With kindly words or with hot talk that will rankle in memory as long as life shall last?

Let the Hard Knocks Go

A good while ago a wise man advised people "so far as in them lies live peaceably with all men." This was good advice. How near can we come to living up to it? Hundreds of years before that another man said a day when the wildest of animals would lie down together, when men and trees would come up in the place of thorns and fir trees where now birches grow.

But if that time ever does come somebody will have to tear up briars and set out better trees. Bouquets and roses will have to take the place of thistles and ragweed. Folks will have to learn to be good and kind to each other, to bear one another's loads and to help each other up the hard hills of life.

Don't you think it is most time to begin living that kind of a life? If we could only overlook each other's faults; if we had the grace to let the hard knocks all go; if we could would get around where we could see the other fellow's side of all disputes and questions and let our actions be guided accordingly, then we might see our time the dawning of the golden day foreseen so many thousands of years ago, and have the satisfaction of knowing that we are doing just the little bit toward bringing in the new tide of that day!

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Pittsburgh, Pa., March 29, 1930

No. 13

Potato Fertilization

By J. B. R. DICKEY

(Concluded from last week.)

gradually been getting smaller until in 1929 only one made a divided application.

We have not enough tests to decide this question with any certainty. One test last year indicated that dividing a 1,200-pound application gave some increase over all in the row. If applications are to be over 1,000 pounds, especially where the soil has not been put in good condition as to fertility and organic content, or where the planter puts the fertilizer in too close contact with the seed, divided applications may be expected to give better yields and less risk of injuring germination. Where moderate amounts are applied on a fertile soil with a modern planter, however, row application is simpler and probably equally effective.

Concentrated Fertilizers Popular

In the past it was common among good growers to broadcast 600 to 1,000 pounds of superphosphate, sometimes before plowing, on potato land in addition to the complete fertilizer in the row. Though we have little data to prove or disprove the benefit of this practice it would seem of questionable value and in recent years has largely fallen into the discard.

During the last few years much more concentrated forms of fertilizer have been coming on the market. Nearly all of these are complete mixtures high in nitrogen. If any one can use these to advantage it will be the trucker and the potato grower who can use considerable amounts of ammonia to advantage and who finds the handling of the

large amounts of fertilizer which he needs more or less burdensome.

We have found by experimentation that the mineral forms of nitrogen and phosphoric acid are usually more efficient than the organic forms, as well as much cheaper. Many experiments have been conducted comparing the high analysis goods with standard mixtures on potatoes in Pennsylvania and in other states. There has been some variation as must be expected in all such tests, but on the whole there was little difference.

There are two general types of these high analysis fertilizers. First we have the straight synthetic complete fertilizers such as 15-30-15, and the 16-20-15, 12-21-12 and 10-30-10. The first three are rather high in ammonia, since the first figure represents nitrogen instead of ammonia, and should be divided by four and multiplied by five to reduce it to ammonia.

All are lower in potash than we usually think best. However, they have been used by practical potato growers with apparently very satisfactory results. They are very readily soluble, in fact they must be kept in paper-lined bags to prevent their drawing atmospheric moisture. They are usually in the form of gray pellets like small shot, have no odor, are not caustic and have excellent drilling qualities.

Many double-strength mixtures have also been made up such as an 8-16-14, just double a 4-8-7. These usually are based on the high analysis materials mentioned above or other synthetic nitrogen products to which have been added standard forms of phosphoric acid and potash. These double-strength mixtures should give just as good results as double the quantity of standard goods of similar rates.

Naturally, being very concentrated and very quickly soluble, the high analysis goods must be used with care to prevent burning, but if a proportionate amount is applied with a good planter no more trouble need be anticipated than with standard materials. These synthetic products are lacking, or very deficient, in such elements as sulphur, lime, magnesia and other salts, which, while not considered as direct fertilizers, are present in varying amounts in most fertilizers mixed from superphosphate and potash salts, and are essential to plant growth or may have a stimulating effect upon it.

On some soils the continued and exclusive use of the synthetic materials may create a shortage which might be detrimental. Only experiments in future can determine how serious is this danger and what must be added to rectify it.

"MARKETING Pure-Bred Livestock" is the title of a new book by M. N. Beeler which contains good ideas for cattle, sheep, swine and horse breeders who have surplus breeding stock to sell. The author has drawn on his wide acquaintance among successful livestock men for illustrations showing the profitable and unprofitable sales methods.

The following partial list of chapter headings indicates the scope of the book: "Methods of Selling, Selling Ideas That Have Paid, New Ideas in Auctions, Publicity Methods, Advertising Mediums, Advertising Copy, The Cost of Selling Pure-Breds, Business Methods, Pure-Bred Marketing in Foreign Countries, Tendencies in Marketing Pure-Breds."

"Marketing Pure-Bred Livestock" is published by the Macmillan Company, New York City.



Primitive farming methods still prevail in some sections of Cuba.

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Volume 102, No. 13..... Established 1877

A LED BULL

LAST Sunday J. B. Keller of Mount Joy, Pa., was seriously injured by his bull, which he was leading by a rope when it suddenly attacked him. Fortunately several friends saw the affair and went to his aid in time to save his life.

SPECIAL EGG MARKETS

EVERY spring we get calls for help in locating or developing special markets or outlets for fresh eggs. We have found that it is impossible to interest buyers at this season. They say that too many producers who think they can supply choice eggs all the year are mistaken. The time to find a special outlet for eggs is in fall or winter, for the buyer then has confidence in the ability of the seller to supply them regularly.

FROM LIFE

AN English paper recently reported the sale of a herd of cattle every member of which traced to one cow, with which cow the late owner started his herd in 1882. We have known two such herds in this country, one of pure-bred beef cattle, the other of pure-bred dairy cattle. In both cases the breeders began with a single pure-bred cow and built up very good herds without ever buying another female. Men who have access to good sires can thus secure a pure-bred herd or flock at very little cost. Blood is about the cheapest thing in the world when its cost and its value are correctly rated.

TWO CASES

THE management of a New England cotton mill recently submitted this proposition to its employees: A certain big order could be obtained which would guarantee to 1,000 workers steady employment for six months. But the price at which the order must be taken made some reduction in wages necessary to avoid loss to the mill. The employees were asked to vote on accepting a slight reduction in wages to enable the mill to secure the order. They voted four to one against it. We don't pretend to know whether they voted right or wrong on this proposal, but wisdom is not always the prevailing element in such cases.

Before jumping to the conclusion that labor will not accept reductions except by compulsion we might look at another case: The men employed by a certain mining company were notified that the mine would shut down

on a given date because its product could not be sold except at a loss. They went to the management and proposed to work for lower wages until the market would justify something better. Their proposition was accepted and that mine continued to operate while many others were idle. There can be no question about the wisdom of this action, for time has proved it.

TWO VETERANS

AT the forty-eighth annual meeting of the Tri-State Sheep and Wool Growers' Association last week two veteran members were honored, both having been active in the organization's work for forty-five years. They are Mr. S. C. Gist of Wellsburg, W. Va., who was given a life membership; and Mr. R. L. Munce of Washington, Pa., who was given a fine cane. The representatives of the sheep industry who attended the meeting expressed no despair over current prices of sheep and wool. The veterans have all seen such periods of reaction or depression and they know that their industry will survive them. They advise sticking to the business, improving the flock and studying better methods of production as essentials to future prosperity.

TO RAISE CHICKS

IT is safe to predict that within the next few weeks hundreds of poultrymen will come to grief with their new flocks of hatchery chicks. Some of them will realize that their chicks die because the care-takers fail to observe a few important rules of sanitation and feeding. Others will blame the hatchery. Little themselves, baby chicks illustrate the vast importance of little things. The "grow healthy chicks" campaign fostered by agricultural extension departments in many states gives almost incredible results to those who observe scrupulously the simple rules laid down. The county agent has the rules; any one can follow them if he wants to.

UNDERCONSUMPTION

BY actual count one day last week 1,740 persons appeared in a "bread line" to get free food here in Pittsburgh. Unemployment is said to be greater in some other centers of industry than it is here. Whether this is correct or otherwise it is certain that many are without work and consequently not buying food or anything else in the usual volume. How many of those not now at work have assumed obligations by buying on the installment plan? And how many of those at work have so many obligations of this kind that they cannot be liberal buyers of foodstuffs? There is no way to answer such questions, but probably these two influences, unemployment and installment obligations, have much to do with unsatisfactory markets for farm products.

EXPORTING EGGS

THE Pacific Egg Producers' Cooperative is building up an export trade in fancy eggs. South and Central American buyers, long prejudiced against the unreliable local product, are learning that they need not question the antecedents of certain brands of eggs from the United States. The Pacific Egg Producers point with pride to a single shipment of 50,000 cases to Argentina. Each exported egg is stamped with a quality guaranty in the form of the appropriate initials "PEP" or with another of the organization's registered trade-marks. Eastern producers need not hope that South America will remove Pacific Coast eggs from the New York market. Nevertheless, after hearing so much about Chinese competition, the substitution of packers' by-products for egg albumen in industry, etc., it is refreshing to recall this more optimistic note.

"WESTWARD HO!"

ENCOURAGED by the hearty response to our announcement of a vacation trip to Florida and Cuba this winter, and the evident satisfaction of all those who took this trip, we are contemplating a western excursion this summer. It will cross the great industrial and agricultural regions of the Central West, traverse the vacation land of the Rocky Mountains and continue on to the Pacific Coast. The return will be made by another route, chosen so that both going and coming new things and points of interest will be covered. In discussing this trip with railroad we find that we can obtain very reasonable rates, which will be materially lower than an individual could obtain for the same service and attractions.

While there is much work to do on the farm before vacation time we are announcing the proposed trip now in order to give readers opportunity to make their plans if they would like to go. If any persons in your neighborhood made the Florida-Cuba trip we suggest that you talk it over with them and get the opinions of the Pennsylvania Farmer vacation trips. The western trip will be conducted with the same attention to the travelers' comfort and convenience as characterized the southern tour. And if you would like to go along with us to the Far West next August we should appreciate it if you would write and let us know.

A PLEA FOR EQUALITY

DURING the past ten years we have heard and read many pleas for the equality of agriculture with industry. Here is a plea of the same nature but in reverse. It is made by Harrison F. Jones, Executive Secretary of the National Poultry, Butter and Egg Association, who says: "When all is said and done agriculture has been the recipient of too many favors and industry and commerce have been the victims of too many restraints. If equality is to be established between agriculture and other industries it can only be done through equal laws." No doubt we shall hear more of the same nature in the future. A great protest against some legislation supposed to be in the interest of agriculture is now developing. Thus far it consists merely of words, but some day we may have to work to keep such reactions from interfering with necessary and proper laws in relation to agriculture.

THE NATIONAL PLAN

LAST week, at the meeting of the Tri-State Sheep and Wool Growers' Association, Mr. J. F. Walker gave a very fair presentation of the national wool marketing plan as worked out by the cooperating organizations and the Federal Farm Board. He did not attempt to "sell" the plan to any organization but stated the claims made for it and answered questions about its possible advantages and disadvantages. From this discussion it appeared that the chief financial advantage, from the standpoint of the Ohio and other eastern organizations, is the ability to borrow money at a low rate of interest to finance the organizations and the growers. The principal disadvantage to the Ohio organization is an addition of three-quarters of a cent a pound to the cost of selling. That organization's charges will thus be raised to 30 per pound. So far as the smaller eastern organizations are concerned probably the plan which are well established will continue to handle their wools as in recent years. The same is true of much of eastern fine-wool territory, where selling to mills is the custom and has been for a long time. The national organization is expected to handle about 1,000,000 pounds of wool this year.

New Jersey Farm Comment

By G. W. HARRIS

well as the entire rural interests of the state. This study will make it possible to bring these different interests together and aid each other in definite rural township problems.

MEMBERS of the Hunterdon County Poultry Association are interested in the possibilities of establishing an auction market in Flemington for the sale of eggs and poultry products. At a recent meeting of the poultrymen Alben E. Jones of the Bureau of Markets pointed out some of the conditions in the state which might make such a market advisable.

South Jersey producers for the past few years have been selling their eggs on a premium basis, but in Mr. Jones' opinion this has become only a premium in name and some other method of estab-

packing plants and buyers in the eastern markets know that they are always uniform. Members of this organization have taken a step further in standardizing their products than most co-operators by standardizing the feeding of their flocks.

Producers of nearby eggs might well take a tip from these West Coast poultrymen on grading and standardizing their product. Just recently these West Coast eggs have been topping the nearby egg market by two to four cents.

At ten-thirty we boarded the P. R. R. tug boat "Lancaster" for a five-hour trip around New York harbor and a view of the shipping facilities of that city.

The next morning we arose before dawn to see the western and southern produce sold at the terminal markets. At five-thirty the gates at the Pennsylvania Produce Terminal were opened to let the noisy horde of buyers in where there were over 200 carloads of produce for sale. Before eight-thirty this great terminal was empty of fruits and vegetables and a stroll through the Washington Street market showed us where this produce had been taken and how it was being disposed of.

During the past year 87,000 carloads of fruits and vegetables were unloaded at the Pennsylvania Produce Terminal, and this was only a portion of the perishables necessary to feed the city of New York. The method of buying and selling produce in this building with its ten acres of floor space again emphasized upon our minds the necessity of careful grading and standardizing of farm products if they are to bring the most profitable returns.

IT is encouraging to dairymen to note that the market report showed considerable improvement in the storage holdings of butter in ten markets and that this was attributed to more liberal use of this butter. The net reduction in the surplus for the ten markets during the first 20 days of March was 3,620,554 pounds.

One day last week as I passed a chain grocery store I noticed a sign in the window calling attention to the broadcasting hour of the Lamb Feeders' Association. Here is one interesting example of a farmers' organization attempting to stimulate and increase the consumption of their product by radio advertising. Not only that, but the much criticized chain store was cooperating with them in carrying out their project. Possibly the dairymen might profitably follow the lamb feeders' example and let the housewife know that butter is cheap.

MANY poultrymen are sold to the idea that substantial improvement in poultry flock egg production is based on the use of individual breeders of known production capacity and record, says Willard C. Thompson, poultry husbandman of the N. J. Experiment Station. Yet there are many who do not find themselves in a position to carry on the extra work involved in trapnesting and pedigree hatching, which such a basis of selection requires.

These poultrymen can, however, during this spring chick rearing season, do a great deal which will tend toward obtaining similar results. In every hatch of chicks there will be some pullets which will reach egg-laying maturity ahead of others. It is a known fact, other things being equal, that the early maturing pullet is the best egg producer. Therefore, the poultryman should know the age of each pullet when he is selecting birds for the new laying flock in the fall. Probably the simplest method for making this information available at all times is to toe-punch the chicks of each hatch this spring, and then keep a record of the dates of hatches and their distinctive mark.

This simple method of marking is possible regardless of whether the chicks are hatched at home or are purchased. Usually, the average poultryman finds it both economical and convenient to buy his chicks in two or more batches during the season. Unless the chicks of each hatch are definitely marked the chances of uncertainty as to age when they will lay are increased and a loss of



Four Paying Passengers

lishing a New Jersey top quotation should be undertaken. During recent weeks Pacific Coast eggs have been over-selling New Jersey nearby eggs by at least four cents. Even with the two-cent premium which one of the South Jersey cooperatives secures, this still nets the New Jersey producer two cents less than the Pacific standard grade.

Practically all the Hunterdon county poultrymen now sell their eggs individually. The plan under discussion at the present time is to organize a non-profit cooperative handling at least 500 cases of uniformly graded and candled eggs each week and selling these at auction.

Such a market would undoubtedly attract many New York buyers, but according to the opinion of one Philadelphia buyer it probably could not be used profitably by the Philadelphia trade. Egg prices in the Philadelphia market are set by the exchange rather than by sales to the retail trade. It is claimed that the exchange is controlled by a few large buyers and that buying eggs at auction might often result in selling at a loss.

Another meeting of the poultrymen interested in the project will be held on April 16 when it is hoped that a definite decision will be made.

LAST week I had the pleasure of spending two days with a group of Ohio farmers on a visit to the New York City markets. The trip was sponsored by the Ohio Farm Bureau Federation in cooperation with the Pennsylvania Railroad in order that these producers might better understand handling and buying methods in the city markets.

Our first visit after our arrival in New York on Tuesday morning was to the Pacific Egg Producers' Association offices and sales rooms. This organization is owned by West Coast egg producers and is controlled largely by four cooperatives with a total membership of over 10,000 producers. During the past year, these shipped over 1,000,000

DAIRYMEN will have a real opportunity to secure good sires for their herds from Burlington county breeders on Saturday afternoon, April 5, when sixteen or more of their pure-bred bulls will be sold at auction at Locust Lane Farm near Medford. Milk producers should take advantage of this present over supply of high quality bulls in the county and replace their "scrubs" and ordinary herd sires. All animals offered will be sold, regardless of price. County Agent Thompson has already secured for the sale twelve pure-bred Guernsey bulls, the dams of which have an average production of 513 pounds of butterfat. Four Holsteins will be sold. Their dams have a total average production record of 487 pounds of butterfat. When we consider that over half of these records were made at two years of age, it is evident that these animals will make satisfactory future herd sires for most any dairyman's herd. The animals offered for sale range from two months of age to two years of age.

COUNTY AGENT SMITH in Burlington county warns his growers against increased planting of cabbage this year. He points out that the favorable returns obtained in the intermediate shipping states, which include New Jersey, in spite of the increased acreage in 1929, may cause a further increase in planting in 1930. Low yields probably caused the 1929 market situation to be more favorable than that of 1928 and a decrease of five per cent in the acreage in those states would probably still furnish adequate supplies in view of the usual summer price slump. If more growers would take such warning to heart instead of becoming over optimistic after an unusually profitable season, there would be less demand for "farm relief."

THROUGH the New Jersey Joint Committee on Rural Electrification, which was organized about a year and a half ago, utility companies and agricultural representatives have been brought together in directing the work of electrification of farms in the state. During this time the work has been directed by this committee and the cost of operation has been borne by the utility companies.

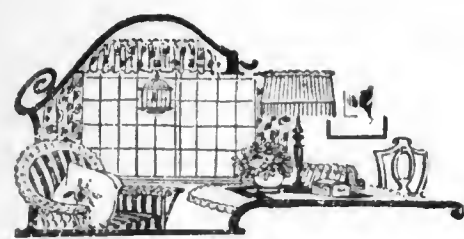
Recently the committee ceased to be a directing and financing organization for the promotion of rural electrification, and now is merely a clearing house of available information concerning this work. Arrangements were made whereby Mr. Krueger, the engineer in charge of the rural electrification of the Joint Committee, would be employed by the extension department of the Agricultural College and his work financed by that agency instead of the utility companies. Utility companies have acknowledged the importance of the work of the joint committee through their employment of representatives in their own behalf who are covering their territories with an idea of the extensions and promotion of the use of electricity on farms and in farm homes.

The use of electric power on farms is still in its infancy and it would seem that rural problems could be solved more efficiently through the joint committee as originally organized than through independent interests. Through this committee all interested parties were brought together to work toward a common goal, the development of rural electrification.

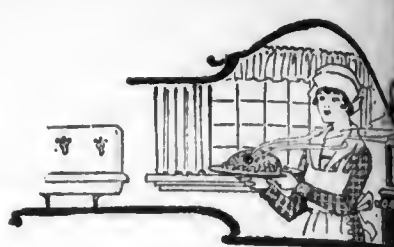
THE State Department of Agriculture presents some figures concerning the agriculture of the state which may give farmers a better realization of the importance of their industry. For feeds, fertilizers, seeds and milk cows it is estimated that New Jersey farmers will spend more than \$32,000,000 this year. This amounts to more than \$1,000 expenditure on every farm. The hired farm labor bill which so often eats away the farm profits totals \$19,000,000.

In return for these expenditures it is expected that the sale of dairy products will exceed \$17,000,000; baby chicks \$4,500,000; and from fruits and vegetables more than \$30,000,000.

PLANS for a study of the activities of township committees in New Jersey to show just what they are doing along various lines and the possibilities for rural improvement are under way. This survey is being made by the State Department at the request of the New Jersey Federated County Boards of Agriculture and should bring to light much information of use to various townships as



The Farm Home



How We Hold 'Em

By GERTRUDE S. STEWART

HAVE you heard this one? "Delicately perfumed cake powder may catch a man, but it's baking powder that keeps him." Now honestly, have you ever known one of the male species who didn't smile all over his face when he spied the big Sunday cake all snowy with coconut, or even smell a rich chocolate cake while still in the oven?

Here are several of the finest cake recipes ever printed. My family enjoys them over and over. In fact, "friend husband" often says (after eating some of the testing I must do) "It's a shame to feed us cake like that when you can make such delicious ones."

I'll let you have my three very best cakes, and maybe you will let me have some of yours that are different and interesting.

Chocolate Cake

One-half cup butter, two eggs, one-half teaspoon salt, one-half cup boiling water, one-half cup cocoa, one teaspoon baking powder, two cups light brown sugar, two and one-fourth cups sifted cake flour, one-half cup sour milk, one teaspoon soda, one teaspoon vanilla.

Cream the shortening, add one cup sugar gradually, mixing well. Beat the eggs very light, then beat into them the other cup of sugar. Combine the two mixtures, beating thoroughly. Add baking powder to the sifted flour, also the cocoa and sift the mixture three times. Now alternate the flour mixture and sour milk, beating each well into the batter. Add the soda to the boiling water, and beat it into the cake mixture. Add vanilla. This will make two fine layers of dark chocolate cake. I always double the recipe and bake two pans of cup cakes, too, to be eaten hot. Readers have been asking for a chocolate cake that is not red, and as Amos says, "Here it is."

Easter's Golden Cake

Seven-eighths cup sifted cake flour, one-fourth teaspoon salt, one-third cup water, one teaspoon vanilla (or half lemon or half almond), one-half teaspoon cream of tartar, one and one-fourth cups sifted sugar, five eggs.

Boil the sugar and water until it spins a long thread, 238 degrees F. Sift the flour, cream of tartar and salt together four times. Beat the five egg whites to a stiff froth, the yolks separately beaten to a thick, lemon-colored froth. Pour the syrup in a tiny fine stream over the egg whites, beating constantly. Continue beating as the mixture cools, then fold in the yolks and flavoring. Lastly, fold in the flour just a little at a time. Bake at least forty minutes in a slow oven (350 degrees F.), then decrease the heat (325 degrees F.) and bake a half hour longer. Use a tube pan, and invert the pan when removed from oven. Let it cool one hour before removing from pan.

Spice Cake

Three-fourths cup shortening, three eggs, one teaspoon soda, one cup raisins, one-half teaspoon salt, four teaspoons baking powder, two and one-half cups flour, one and one-half cups sugar, three-fourths cup sour milk, one-half cup raisin juice.

Let Us Have Them

If you do bake cakes, and have some that are as good or better than my series, let us have them to share with our readers. Be very careful about measurements and directions. Let's make it a contest. For the best ones we receive a Checker Board Cake Pan will be sent as a prize. The prize recipes will be printed each week during April. Contest closes April 5 and starts TODAY. Address all recipes to Cake Baking Editor, Home Department, Pennsylvania Farmer, 1201 Penn Ave., Pittsburgh, Pa.

one teaspoon nutmeg, one teaspoon cloves, one teaspoon cinnamon.

Soak the raisins in one-half cup boiling water until cold. The water is your raisin juice. Blend the sugar and fat. Add the eggs and beat hard. Then add alternately the flour (into which you have measured salt, baking powder, soda and spices) and the sour milk and raisin water. Lastly add the raisins. Bake in three layers in a moderate oven. Or two layers and a supper of cup cakes, besides.

We all know some women who simply cannot bake cakes, and they deserve our profoundest sympathy. And a few of our neighbors do not have the time. Often the woman with but one or two to cook for, feels it a waste to bake a nice big cake and throw half of it out when her husband is tired of seeing the same thing on the table.

Those women might like to know where they can buy really good cakes in small quantities, or perhaps cup cakes for the "sweet tooth" we all



INTRODUCING A FAMILY OF LEADERS

This splendid group is the family of our Master Farmer Guy A. Leader. Mary, the eldest, is at West Chester Teachers' College; Paul, just seventeen, when he finishes high school will take up poultry work; George, the twelve year-old snuggling youth, wants to be a teacher; Guy, Jr., although only ten, plans to be a farmer; Henry at eight desires a college education. The little girls, Jean and Lois, keep every one busy and smiling. What a grand old-time family—just like Roosevelt admired!

hear so much about. We'll be glad to give the address of just such a place, and they'll mail your orders promptly. Send the usual self addressed stamped envelope with your request. If other problems are bothering you this spring, ask them at the same time.

About Asters

FOR the past few years I have heard some of those who have raised asters for pleasure and profit say they have had poor luck on account of the aster beetle or blight.

Two years ago I had wonderful asters. They grew rapidly and stalks were sturdy until blooming commenced. One morning I went out to the garden to find the one stalk nearest bloom to be covered with aster beetles and have a withered appearance.

I at once mixed a solution of prepared spray according to the directions on the jar, filled my sprayer and thoroughly sprayed every plant. This I repeated every few days after dew had dried off until I was satisfied I had won out.

The result was I had an abundance of bloom and large stalks. Last year I repeated the same process only beginning to spray with the pyrex solution earlier.

Nora Kelly.

To help prevent colds, give the children and yourself a cold splash every morning after washing the face and hands. Apply cold water to the throat and chest. Do not start this practice when the person has a cold, but begin it when in good health.

Gains by Subtraction

By HEPSY NEFF

THESE are busy days on the farm with every hour full from sunrise to sunset. Indeed, it is possible to have too many full hours a day. Even a machine lasts longer if the wheels are stopped and allowed to rest occasionally. Manufacturing plants have found it worth while to stop all operations and have one quiet day week.

The clearest proof of such gains has come from the experience of armies on the march, eager to make their goal. It is a matter of history that an army keeping its men steadily on the march, without any day of rest, loses in both men and morale as against an army which keeps one day in seven for rest, a fact which any doubter may verify for himself.

Why not accept this need of a period as a fact, as dependable as the fact that water will not run up hill and plants will not grow without proper soil, moisture and sunlight. Many of us do accept just such facts as true and dependable and at the same time go on acting as if they were not true. For instance, we do see our animals taking their rest, especially after eating until satisfied. It has been proven that such a period after the midday meal, even rest of half an hour, makes the afternoon easier as well as more profitable.

Machine shops report an increase in accidents as weariness increases. Would it not be the part of wisdom to have our daily program settled far as possible so that our daily activities may fit together, become habits and not collide, head on, like motor cars in the hands of careless drivers?

There is another and perhaps greatest gain from acquiring the subtracting habit. Naturally we subtract the things that are of least value to us and our families and that brings us to a study of the things that do most for health. The loss of health even temporary illness, is so expensive, so disabling, that we are forced more and more to seek causes of our losses and find remedies.

Once typhoid fever was a visitor in many communities. The water supply was properly guarded, typhoid became a thing of the past. We learned that the water supply was the usual cause of typhoid and we subtracted every well that was not wholly safe from any surface drainage. Both the best and the best motor cars are teaching us that the use of best fuel oils and the best lubricating oils give best returns for our money. The human machine at its best possesses great resistance to disease, even more, it checks invading disease germs, has at times, been able to wholly defy disease, the secret of all this is to subtract from our habits, and our surroundings, everything that hinders health. Nature will do the rest.

Save the Oils or Fats

DID you know that chicken fat is excellent cake baking? I did, but had never tried it until this past winter. A neighbor had a large goose for Christmas and she sent me all the since they buy all their baked goods.

Well I had a quart bowl full to the brim of white fat with no perceptible odor and practically tasteless. I used it in many ways—biscuits, pastry, cakes and cookies, and all were most delicious. When the bowl was empty, I vainly went for more.

Clarice Raymond

Mothers, remember that your health and that of your children are closely interwoven. A mother cannot neglect her own health and expect to keep the children's health at top notch. If she plans and cook good meals, keep order and cleanliness and serenity in her home, she must put every effort to keep herself perfectly well.

SAVE THIS 50



THERE are many washers that cost more money than the Speed Queen. There are none of finer quality—none that offer any desirable advantages of washing efficiency, beauty of finish, or durability not found in the Speed Queen. Why then, pay more? Why not take advantage of this \$50 saving? The Speed Queen gives you everything you need for high quality laundry equipment.

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Brightening the Home

IN refinishing old furniture do not forget that wax-polishing is not only the easiest, but also one of the oldest and best methods of finishing. It is customary to wax wood that has not been filled, but to which a coat or two of thin shellac has been applied to set the stain. Filled woods do not show the polish so advantageously. The wax finish will not show scratches to such an extent as varnish or French finish, and may be renewed in the simplest manner.

To remove white marks caused by hot dishes on your dining room table, rub vigorously with warm camphorated oil. Spirits of camphor may be used instead, but requires careful handling. If you use the spirits, heat, moisten rag and rub spots very lightly. When the color has been restored, rub on a light coat of wax, let dry and polish. If you have waxed your table frequently, however, you will have no white marks. The wax builds up a protective covering which heat will not penetrate.

Preserve Original Color

If your wood floors are stained dark, you can help to preserve the original stain by coloring the wax with which you polish them. Put some wax in a can, add a little oil aniline dye, and heat only enough to mix well. Cool to its original consistency before using. You may purchase the stain at any paint store.

If you wish to preserve your inlaid linoleum on the kitchen floor, do not scrub it. When it is first laid, wax it two or three times with light coats of wax, well polished. Use a dust mop daily. If anything is spilled, wipe it up at once. When washing is necessary, use only a mild soap and lukewarm water. Then re-wax. The wax will fill the pores of the linoleum and the dirt will not grind in. If your linoleum is printed, give it a light coat of varnish before waxing to preserve the pattern.

Surprise! Surprise!

"WHAT shall we have for dessert tonight?" I asked Bernata as we hurried with the breakfast dishes. "Oh, make it a surprise," was her quick answer. And I did. It was a delicious cream pudding, but I topped it with slices of golden orange and a generous sprinkle of cocoanut. That part of it made it a surprise, and the children responded with twinkling eyes.

When a member of our family has lost something and it is found by another, it is slipped under the owner's plate at the next meal. Unless that something be clothing, when it is put at its proper place, and the owner is delightfully surprised to find it right where it ought to be.

Surprises are jolly in the lunch boxes and I always hear of it in the evening. Yesterday morning when I went into my dining room, a bouquet of pussy willows greeted me. You see farm husbands "say it with flowers," too.

Junior longed for a ball glove. Instead of stringing him along with one promise after another, little was said, but the lad was happily surprised to find it at his place one springy morning. He was told then that boys who work diligently have more play time than loafers.

Bernata thought her life empty without a fountain pen. So the day it was placed by her plate she was warned that improvement was expected in her writing. It's not the great big solemn things we do that keep homes running smoothly. Just try surprises with the little everyday commonplaces and see.

Mrs. J. P. Nawroot.

When the shirt collars wear thin and ragged, rip them off and turn them upside down, sew on as at first and they look much better and last as long as the other part of the shirt.

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Convince yourself. Use Fels-Naptha in machine or tub. Use it for soaking or boiling; in hot, lukewarm or even cool

water. See what a wonderfully sweet-smelling wash it brings you. Use it for household cleaning, too. Because it works quickly and gets your hands out of water sooner, Fels-Naptha helps keep your hands nice. Get a few bars at your grocer's today.

FREE—a Fels-Naptha Chipper. Many women who chip Fels-Naptha into washing machine, tub or basin find it handier than a knife. Use it and Fels-Naptha to make fresh, golden soap chips (that contain plenty of naptha) just as you need them. Sent free and postpaid on request. Write today. Dept. 7-3-29 Fels & Company, Philadelphia, Pa.

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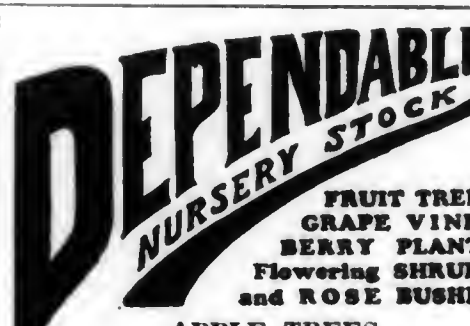
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THE YOUNG PEOPLE

A Beekeeper's Experience

IT may be that other boys, or girls, will become interested in beekeeping, so I am writing to tell them of my experience with them. Of course this is in a small way, but I am encouraged by the report which our County Agent has recently sent me. I hardly know how to "blow my own horn," but it seems that the Polytechnic Institute at Blacksburg, in charge of the Four-H Club work, decided that I had made the best record in bee club work in the state, and were kind enough to say that I had used improved methods, had given winter feeding, protection, etc.

I first decided to take up beekeeping in 1927, when I captured a stray swarm of Italian bees. Although the hive I put them in was well supplied with honey, they died the following winter—probably because the queen was too old to stand the cold weather. The old queen goes with a prime swarm when it leaves the parent hive.

The following summer I bought three frames of brood with Italian bees and a young queen. These built up to a strong hive, but I had to feed sugar syrup that winter, as I had no combs of honey to give them. This colony came through in good shape.

In the spring a neighbor bee-keeper told me of a man who had some fine Italian bees for sale. I got in touch with him and bought four colonies. He gave me some splendid books on beekeeping which I found very interesting and helpful. Another neighbor had a colony of black bees which she did not want to bother with, so she exchanged with me for a sitting hen, eggs and vegetable plants. I also bought a colony of black bees that we had on the farm for some time; then I cut a bee tree on our farm.



Ask Ma why Father is bald.
By Blaudena Belt, West Virginia.

which made a nice strong colony. I transferred all bees to modern hives.

Last spring I clipped the wings of all my queens to prevent their going off with swarms. I reared my own Italian queens and re-queened seven colonies last summer—which leaves only one of the eight colonies with a black queen. I will get rid of her this season.

My total surplus honey crop for last summer was about 256 pounds. I found a ready market for all that we did not use at home. I have exhibited my honey at the County Fair for two years. The first year I won first in the Four-H Club class and second in the general exhibit. Last year I won first in both classes.

My total receipts, including value of bees and equipment at the end of the club year (over what they cost) include value of queens reared, honey sold and used at home, prizes won at fair, all amounted to \$142.46. Total expenses for the year were \$46.54, which leaves \$95.92 labor return, or profit. The county agent, F. H. Derr, and Mr. Brown, in charge of the bee work in Fairfax county, checked my book before sending to Blacksburg.

Of the different books that I have read on beekeeping, I think that "Starting Right with Bees," is the best for beginners. I am a subscriber to "Gleanings in Bee Culture." It is

a monthly journal and is very helpful.

If one goes at it right, there is little danger from bees, and they sure furnish lots of honey, and are the most interesting study in the world.

Marshall A. Doak.



Marshall Doak of Virginia, author of the interesting letter on bees, was delighted when he trapped this big red fox which had made raids on his Brown Leghorn flock. Marshall has promised to give us another story about bees.

Win a Prize

MAE DEEM of West Virginia is responsible for the following questions. She says the first eleven are to be answered with a breed of chickens. The rest are indicated in parenthesis with what type of word you are to use in the answer.

Three gold pencils will be given to those who send in correct answers, accompanied by the best original poem, story or contribution for our Easter page.

Send your letter immediately to Young People's Editor, Pennsylvania Farmer, 7301 Penn Avenue, Pittsburgh, Pa.

Questions

1. Where did the Pilgrims land in America?
 2. What sort of amusements do boys between ages of eight and twelve enjoy best?
 3. What is known as the little fighter that never gives up?
 4. What race of men enjoyed especially to take scalps?
 5. What language is spoken in Mexico?
 6. What is the name of a tribe of Indians?
 7. A city in Germany.
 8. What do little boys like to wear on their heads?
 9. A fine straw used for hats.
 10. What is the name of an island in the East Indies?
 11. What does your big sister use to make her white shoes look nice?
- (Answers to the first eleven questions are breeds of chickens. Look through the advertisements in this paper for help.)
12. What does a rooster do to wake people? (A bird.)
 13. What was an officer in ancient European history called? (A bird.)
 14. From what did Henry make his Ford? (Abbreviation of a state.)
 15. What is the name of a favorite grape? (Cap. of State.)
 16. How did Mary feel when her bean failed to come? (Abbreviation of state.)
 17. To whom was the Perfect Tribute written? (Dread of sheep.)
 18. What is a person called who can live without much sleep? (A bird.)
 19. A boy's name? (Dread of hops.)



My father's Green Daid.
He keeps his hat on in the house.
By Verna Mae Gruber, Pennsylvania

PRIZE WINNERS ANNOUNCED

About "Kate"

ABDICATE, medicate, multiply, pontificate, reciprocate, reduplicate, locate, silicate, placate, implicate, intoxicate, communicate, duplicate, domesticate, dedicate, confiscate, complicate, allocate.

Prize Limerick Line

"Though he's only an innocent bee,"
Submitted by Dorothea Benner, Penn'a.

Close Relative Contest

Great aunt, great grandmother, third cousin, sister-in-law, nephew, stepmother, yourself and grandfather.
Prize winner: Estelle V. Duck, Penn'a.

Coloring the Cats

Florence Majors, Betty Besworth, Fielder Schillingberg, Frederick L. Winters, Mary L. Myers, Jane Zettle, Ada Erb, Dorothy Grace and Esther Whigam.

Queer Pets

Stories about these queer pets will appear in an early issue. Prize winners include—Vernon Mardis, Kathryn Black, Henry Stubb, Edith Mellinger, Everett Craddock, Gertrude Hopkins, Ruth Gardner, Eleanor Snyder, Oriana Lorraine Elton, Robert Reihman, Dorothy Gounder, Frank Hart and Betty Bean.

Girls' Names Contest

Lily, May, Bertina, Baby, Carrie, Adeline, Dora, Patience, Ann, Eve, Jenny, Belle, Effie (F. E.), Bridget, Grace.

SPRING-TIME

By Isabelle Minear, West Virginia
TALKING the buzz of the bee in the old apple tree,
And the call of Bob White in the thicket,
There's the rare perfume of flowers in bloom,
And the chirruping cry of the cricket.
The mountains old, touched by sunshine gold
And the green of the sea nymph's gown,
Rise to the sky, lifting proud peaks high
To receive a golden crown.

From the steep rock walls comes the hum
Of the falls.
To be fairy music known,
The water gleams and the soft air teases
With a fragrance all its own.

There's a spring-time song the whole day long
On the lips of bees at play.
There's a school-boy shout when school's
let out,
For springtime's come to stay.

Little Folks' Corner



The Seven Dwarfs

Drawn by Gertrude Wilson, New York.

What a chance to use your new crayons or paints! Color the picture and hurry it back to Little Folks' Corner, Pennsylvania Farmer, 7301 Penn Ave., Pittsburgh, Pa.

Colored by
Address
R.F.D. Age

PASSING EVENTS IN PICTURES



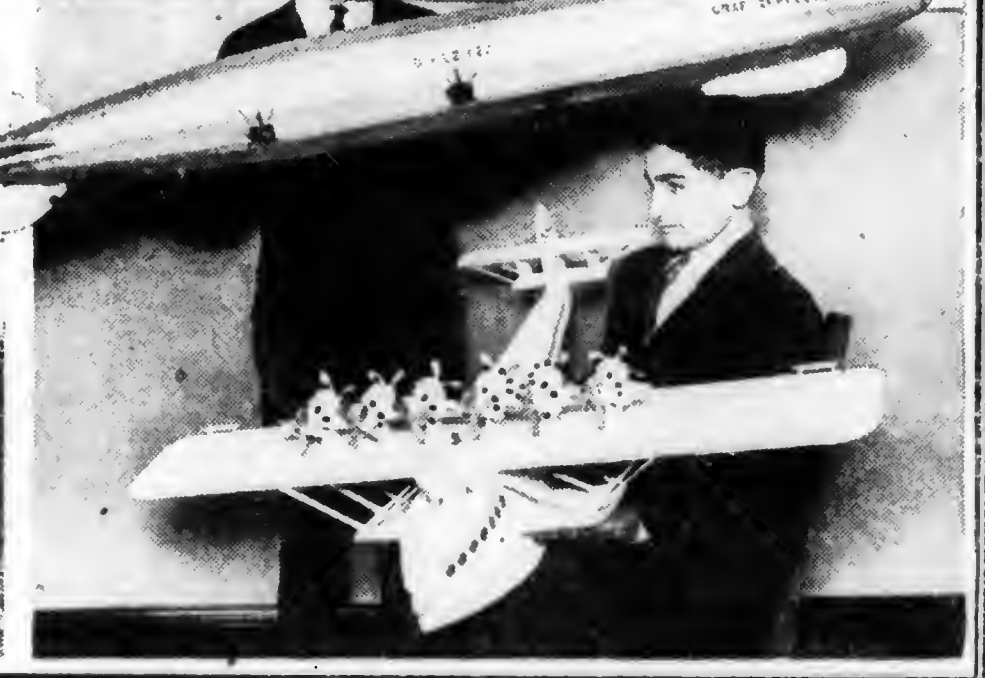
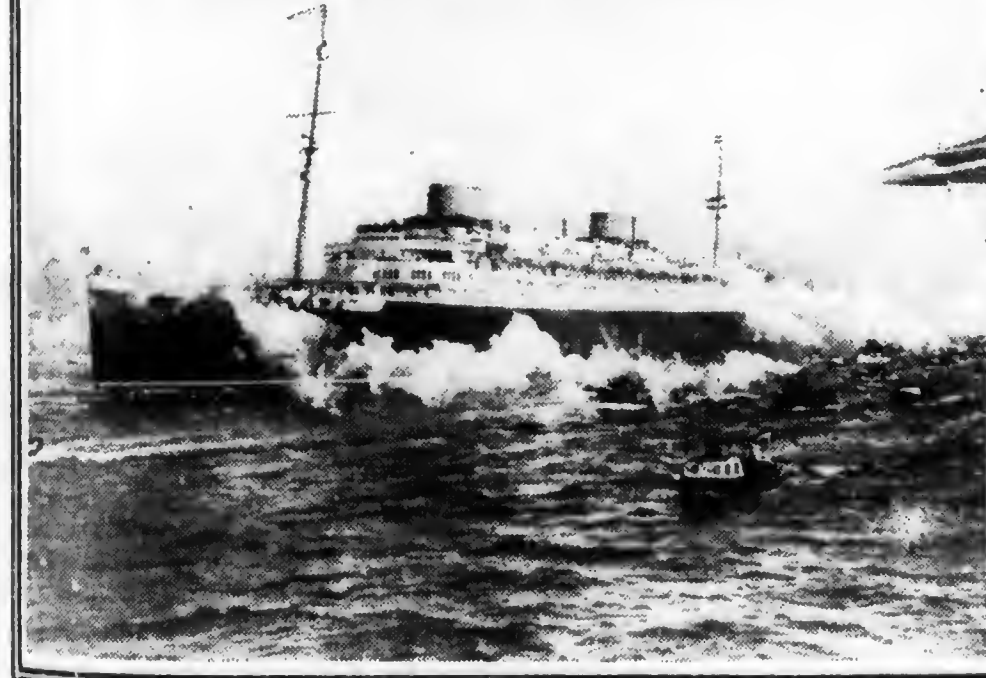
Easter Lilies from Crepe Paper

FLOWERS of all kinds may now be made from crepe paper for home decorations. And it is the most fascinating work one can imagine. From tiny violets to great fluffy chrysanthemums, crepe paper may be made to look like real flower petals. But at this time of the year there is no flower more appropriate than beautiful lilies. All you need to make them is a few folds of crepe paper and some wire.

Send ten cents in stamps or coin for the booklet giving full instructions for making Easter lilies and many other flowers. They are simple to make when you have the pattern and complete description contained in the booklet.

Address Party Editor, Pennsylvania Farmer, 7301 Penn Avenue, Pittsburgh, Pa.

"Why does an Indian wear feathers in his head?"
"Why, I guess to keep his wig-wam."



(Copyright by Underwood & Underwood)

Upper left: Amos 'n Andy, who need no further introduction to thousands of radio fans, photographed with M. H. Aylesworth, President of the National Broadcasting Company, at the White House Executive offices where the well-known operators of the Fresh Air Taxi Cab Co. were received by President Hoover.

Left to right: Freeman F. Gosden, Amos; Mr. Aylesworth and Charles J. Correll, Andy.
Upper right: Omaha, Nebraska: The Rev. Hans Peter Bertelsen, retired Lutheran minister of Blair, Neb., the inspiration for John Greenleaf Whittier's popular poem, "The Barefoot Boy," as he looked on his 84th birthday recently.
Mr. Whittier was visiting the farm at Sheffield, Ill., where Bertelsen was employed at the age of 18, and got the idea for his immortal verse. Rev. Bertelsen and poet Whittier later became fast friends and now the Blair minister has a large collection of the poet's most famous works.

Center left: Chicago: Photo shows, left to right, Ruth Moulton and Betty Baxter seated in a Stanley Steamer car, that was made in 1899. This car has been given to the Rosenwald Museum and will be one of the first relics to be placed in the museum.

Center right: New York: An artist's drawing of the projected RCA Victor Building which will tower 50 stories high at the southwest corner of Lexington Avenue and East 51st Street.

The modified Gothic tower will rise 650 feet.
Lower left: Hamburg, Germany: The Europa, completely reconditioned after her disastrous fire about a year ago, starting out on her maiden trials in northern waters, before her Atlantic crossing on which she will attempt to beat her sister ship's (Bremen's) record. The sailing is slated for March 19.

Lower right: Chicago: Photo shows Walter Hornig, with a model of the Zen, and Emil Marzullo, with a model of a plane, which was exhibited recently by the Board of Education in Chicago. All of the Chicago high schools were represented by students with craft, but these were picked as the best of all.

Use BAG BALM if you want Bag Balm results



Delicate tissues

need delicate healing

Avoid imitations which may have similar names, or a similar package, but which can not produce BAG BALM results. Some ointments, containing Formalin, are actually harmful when used on delicate tissues.



NOT all healing agents are suitable to the safe healing of udder and teat injuries and disorders. The delicate tissues may be definitely harmed and normal condition retarded if the application is unsuited.

There's no need to take chances. BAG BALM, the great healing ointment, has won a nation-wide reputation by its efficiency and economy for treating all udder and teat troubles. Quick, thorough results are achieved by reason of a scientific combination of refined medicated ointment, plus a remarkable penetrating antiseptic oil. This oil carries the medication quickly to the seat of the trouble; promotes circulation and rapid healing.

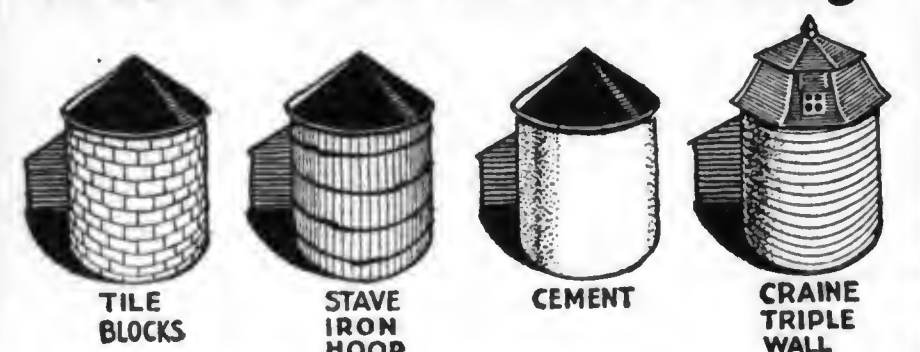
Cuts, chaps, cracked teats, bruises and similar superficial injuries often are cleared up between milkings. For treating Caked Bags, Bunches, Inflammation of the Udder and other ills of the milk-producing organs.

BAG BALM brings prompt benefits

BAG BALM is inexpensive—large 10-ounce package only 60¢. It cannot irritate the milk. Sold by feed, drug, hardware and general stores. If dealer is not supplied we will mail postpaid. Ask us for FREE 32-page Cow Book.

Dairy Association Co., Inc.
Lyndonville, Vermont

What Silo Shall I Buy?



Why guess which kind of Silo is best for you—which one will show you the biggest profit—when you can KNOW without a cent of cost. Craine, Inc. in the past 29 years has learned that what is best for one man is too expensive for another. Therefore in THE CRAINE LINE, you'll find 11 different kinds of good silos. We do not care which one you buy—and so, we can recommend the kind that we really believe is best for you—standard stave, concrete stave, solid concrete, glazed tile, tapestry tile, woodstave or triple wall. Isn't the unbiased truth about Silos worth knowing?

FIRST: Send for our catalog and comparative prices. Then, we'll send a trained representative who knows what he's talking about. If you wish. No cost; no obligation. Better do it now—so there'll be plenty of time to decide.

CRAINE, INC.

40 Grant Street Norwich, New York

Lump Jaw

The farmer's old reliable treatment for Lump Jaw in cattle. **Fleming's Actiniform** Sold for \$2.50 a bottle, postpaid, under a positive guarantee since 1880—your money refunded if it fails. Write today for 32-page FREE LITERATURE. A book of 300 pages and 17 illustrations. Buy 6-12.

CUT HOG FEED BILLS

Wanted, feed means wanted profits. Start saving feed now with an Economy Feeder. Actually pays for itself in a few months in feed saved. Over 40,000 in use. Free balance their own relations, mature quicker, Amaze low prices. Write for literature. The Hargrove Co. (D. M. Silo & Mfg. Co.) 695 N.Y. Ave. Des Moines, Ia.

Farm & Dairy

By L. W. LIGHTY

"I HAVE eight acres to sow to permanent pasture. With it are a few acres along the creek which will yield some grass. I contend this eight acres is enough for six cows and two to four head of young stuff that I will have most of the time. My neighbor, an older man, says it will not be nearly enough. Tell me about this and tell me how to seed this down and what to sow." This from a Northumberland valley farmer. What I say is liable to fit any valley or hill in this or neighboring states.

An acre per cow of good land with pasture in good condition is fully sufficient as to area. We should all understand that no area is large enough to furnish all the feed the cow needs all summer to give a good flow of milk. She must have grain. When the grass is young and lush it is all right to let the cow have a little rest on grain digestion, but soon the grass gets harder and is not so plentiful. Then we feed grain and continue to do so the rest of the season. With an abundance of pasture the cows need less grain than with an abundance of dry feed, but they need grain. With a stream of water and shade the inquirer will have an ideal pasture.

Soil Requisites

Aside from redtop all good pasture grasses are benefited by lime. It is profitable to apply lime in excess of the needs for neutralizing the acidity because bluegrass and clovers need a good supply of lime to do their best. A heavy application of potash and phosphoric acid is right, but the application of nitrogen should be moderate, as it is readily lost if not used by the plants.

The seedbed should be compact and well pulverized before we sow the grass seed. I find if all the soil and seed conditions are right early summer or late summer seeding do equally well. If the soil is lacking in organic matter supply this before you lay it down to permanent pasture by plowing in a lot of coarse straw manure or a manurial crop. No other one factor is responsible for so many partial failures as the lack of organic matter in the soil.

Grasses for Permanent Pasture

For a number of years I advised farmers face to face and thus met them year after year. If my advice panned out only in expenses and not in income there were many frowns to face. I therefore devised a grass seed mixture that brought me smiles the first summer after seeding down and every summer thereafter.

We all understand that Kentucky bluegrass is the best and most important pasture grass for this section. But we should all know that this grass is slow establishing itself so as to give a large and continual supply of feed. Therefore we need grass in our mixture that will give feed while the bluegrass is being established.

In buying grass seed deal with a reliable party. Demand a guarantee that the seed is free from noxious weeds and that it will germinate, that is the germination should be above 85 per cent and the clovers should be above 95 per cent. This is important, as lots of grass seed on the market is full of bad weeds and much is very low in germination.

Here is the seed to sow to the acre: Kentucky bluegrass eight pounds, Canada bluegrass four pounds, red clover six pounds, alsike clover three pounds, redtop three pounds, timothy three pounds, and white clover one pound. On land high and dry you can drop the redtop and sow six pounds of timothy.

The summer after seeding the clovers will be the main feed. The second season the red clover will be less and the timothy will loom big with the alsike. The third year the blue-

Wonder FEEDS

Cows and poultry, horses and hogs do better on R-K-D Wonder Feeds. Your dealer carries them. See him today or write us direct.

ARCADY FARMS MILLING COMPANY
52 Brooks Building
CHICAGO, ILLINOIS

FREE WRITE TODAY for FREE POULTRY and DAIRY BOOKS

THE UNADILLA is the most practical silo

It represents the highest development in wood stave silos. Cures and keeps silage perfectly. Provides greatest safety and convenience in use. Gives owners largest return on their money.

Send for free catalog and ask about discounts for cash and early orders. Time payments if wanted. Also makers of tubs, tanks, vats.

UNADILLA SILO CO.
Box P Unadilla, N. Y.

AS IT PAYS FOR ITSELF IT PAYS YOU A PROFIT

Are You Making Money on Your Farm?

Don't let neighbor Jones get the start on you again this year. Beat him to it and get the **MARIETTA CONCRETE SILO**. The Marietta Concrete Silo has attained the highest degree of perfection in the silo world. We have left nothing out of our famous Redwood Hinge Doors—New telescoping stave joint—Concrete Gate—"Spreader" reinforcing—Complete Erection, Etc.—All for a very moderate cost. Get our new 1930 Catalogue with valuable information on **MARIETTA CONCRETE SILOS**

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Dept. P, Box 354, Marietta, Ohio

STANDARD GARDEN TRACTOR

A Powerful Gas Tractor for Small Farms, Gardeners, Florists, Home Use, Fruit Growers & Poultrymen.

DOES 4 MEN'S WORK
Handles Field and Truck Work, Pulls, Runs, Mows, Plows, Cultivates, Mows Hay, Machines, Walking, and Laying, etc.

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The last word
In treating all lamenesses, while horse works, 1,000,000 acres endorse humane, guaranteed **Save-the-Horse Treatment**. FREE! Send now for the greatest horse book ever given away. Tells how to locate and treat all lamenesses. Book, sample guarantee, and proof that "Save-the-Horse" makes good, sent free. Write today.

This Cow In 10 months Nets \$353.96



"J. B. Dowden Feeds B-B Hi-Test and Gets More Milk for Less Money" says Uncle Charlie



B-B 24% DAIRY RATION
Feed with coarse roughages—timothy, mixture of timothy and clover, red top grasses, corn fodder.

B-B HI-TEST 20% DAIRY FEED
Feed with clover hay or medium quality alfalfa and silage.

B-B MARMICO 16% DAIRY FEED
Feed with high quality clover or second growth alfalfa. Excellent for dry cows.

B-B FEEDS
Feed Bull Brand Vitamized Laying Mash, Scratch Feeds, Chick Starter and Growing Feeds.



The Home of the Feed that's Guaranteed

grass will assert itself and become stronger annually, while the rest will grow less except the white clover which is very permanent and very good though not very large in quantity. Then after this pasture is established remember like all other crops on the farm fertilization is necessary periodically.

What Does the Feed Weigh?

An inquirer tells me he feeds each cow a gallon of feed a day. His cows have dropped much in milk flow and are not doing well.

If that gallon were corn meal and cottonseed meal it would weigh seven to nine pounds and with a lot of good hay and silage might do for a cow giving twenty odd pounds of milk. But if that gallon is made up of bran, pulverized alfalfa and the like it would likely weigh two pounds and would cut a very small figure in nourishing a cow.

After reading the inquirer's letter I felt right sure that the cows did not have enough to eat to give any milk and I so wrote the man.

Telling a man the straight truth at times displeases him, but I just have a letter from a New Jersey man who puts it this way: "A year ago you answered my letter and told me I was feeding such a poor ration the wonder was the cows gave any milk at all. I did not like it, but this autumn I hunted up your letter and started following your suggestions in feeding and I never had my cows do better and look better in the five winters I have been keeping cows. I guess you were right and so I ask you more questions."

It is of course foolish and wasteful to feed all the cows alike, unless they all give the same quantity of milk or are supposed to, which is ridiculous. Generally in buying mixed feed one is getting from 20 to 24 per cent protein is desirable. Then in feeding use weight and not measure. If a cow gives ten pounds of milk she will need about three pounds of feed, while the cow that gives forty pounds of milk will need about thirteen pounds of feed. Always feed according to production and be sure you feed enough and a good quality feed. If the cows fail to pay for their keep then blame them and get rid of them as soon as you can.

C. T. A. Report

Coventry Cow-Testing Association

THE Coventry Cow-Testing Association finished its eighth year March 1, 1930, with 18 whole-year members and one part-year member. There were 659 cows in the Association during all or part of the year. The results in the Association for the year are as follows:

| Av. No. Cows | Lbs. Milk | Lbs. Fat |
|--------------|-----------|----------|
| 271.61 | 6614 | 265.5 |
| 131.17 | 7407 | 288.5 |
| 122.09 | 7840 | 308.3 |
| 80.13 | 8107 | 313.4 |
| 85.58 | 7322 | 294.8 |
| 54.17 | 7757 | 329.5 |

Ten herds with an average of five more cows exceeded an average production of 500 pounds of butterfat. Complete list of these herds follows:

| Owner | Lbs. Milk | Lbs. Fat |
|-------------------|-----------|----------|
| W. H. P. Toland | 7,181 | 112.2 |
| L. Solzberger | 6,158 | 106.1 |
| W. H. H. H. H. H. | 5,704 | 96.9 |
| W. H. H. H. H. H. | 5,169 | 89.8 |
| W. H. H. H. H. H. | 4,164 | 81.2 |
| W. H. H. H. H. H. | 3,580 | 55.0 |
| W. H. H. H. H. H. | 3,195 | 52.7 |
| W. H. H. H. H. H. | 2,719 | 33.7 |
| W. H. H. H. H. H. | 2,019 | 31.7 |
| W. H. H. H. H. H. | 1,626 | 30.9 |
| W. H. H. H. H. H. | 1,686 | 33.7 |

There are no known cures for abortion but there are precautions. The "Reducing Losses from the Abortion Disease" suggests ways to prevent losses. Ask the Mail-Box, Roberts Hall, Ithaca, New York, for Bulletin E 182.

CRAWFORD COUNTY CATTLE

We have at this time an unusually large supply of dairy cattle, purebred and grade of all the dairy breeds, offered for sale. Carloads of grades springing and fresh are, averaging \$15.00 to \$20.00 per head F.O.B. Several P.H. bulls offered at bargain prices. 10 head registered Holsteins, \$1,700.00 per head. All services are free in any quantity.

Crawford Co. Co-op. Dairy Imp. & Sales Assn., Market House, Meadville, Pa.

DAIRY CATTLE

Guernsey Bulls 3 to 17 months. Register. **HARRY G. BINKLEY**, Conestoga, Pa.

Holstein Bulls for sale, from an accredited herd, from calves to service-horn and 4½ bull. Also females. Crystal Spring Stock Farm, Littlestown, Pa.

DAIRY CATTLE

JERSEY BULL CALF—Dropped 12-22-'29. Solid color, excellent type, deep body, straight back out of Register of Merit dam that made \$25 lbs. milk with first calf at age 2 yrs. 2 mos. Calf sold by grandson of 28 lbs. dam. First check for \$100.00 takes him. Federal Accredited Herd and blood tested.

HIGHLAND FARMS, Greensburg, Pa.

AYRSHIRE CATTLE of the best blood lines. Herd T. B. Accredited. Animals of both sexes and all ages. Geo. B. McConnell, Wellington, Ohio.

TWO GOOD JERSEY heifer calves, 2 and 3 months, from extra cows. Accredited herd. W. E. McFARLAN, Furness, Pa.

HOLSTEINS—Good individuals backed by practical production records from a clean herd. Inquiries solicited. Croala Farm, Inc., Clinton, Pa.

REGISTERED JERSEY BULLS and heifers, 6 to 12 months old, accredited herd. Write us. J. M. MAIN & SONS, Shippensburg, Pa.

GUERNSEY BULL

One year old. This type and good breeding. Also a son of 1 plant's best type, a son of Langwater Cattle Co. from 185 pounds of fat in two a day milking with no silage. Priced very low. The owner does not wish to keep a bull on the place. For further information, address: F. P. KILLIP, Mer. Dundee Farm, Sewickley, Pa.

GUERNSEY BULL ready for light service. Also bull calves out of 1012 fat, granddam 1,011 fat. We can spare two or three females. Accredited and Blood-Tested. **WILLIAM BAUMGARTEL**, Sewickley, Pa.

FOR SALE Purebred Holstein cows and heifers. Fully accredited. W. E. McFARLAN, Furness, Pa.

REGISTERED BROWN SWISS BULL CALVES (born May 6 and Nov. 27). Good individuals. Also bred to a Grand Champion. Contact Lake, Pa.

GOATS

Registered Swiss & Nubians, from heavy milking thoroughbreds. Big Bucks and does, jacks, trips, heads. Lloyd B. Goldsborough, R.R. Moulton, Pa.

SCARFF'S BERRY PLANTS

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1400 acres of most fertile soil. Small fruit plants and ornamentals our specialty. Healthy, vigorous stock.

Viking Red Raspberry—Latham Red Raspberry—Van Fleet Red Raspberry—Youngberry (Young Raspberry)—New Logan Black Cap—more resistant to mosaic—Gallia Beauty Apple—red strain of Rome. These outstanding new varieties and the best of the standard kinds are fully described in our new catalog.

EVERGREENS—Beautify your home with Scarff's Evergreens—Flowering Shrubs—Trees—Roses—Perennials and Hedge Plants. Our assortment of varieties is complete and prices reasonable.

SCARFF'S SEED CORN

CASE—Very early, heavy yielding, deep grain, small cob, medium stalk, fine feeding corn.

CLARAGE—Mid-season variety, produces well, good grain, medium to large fodder, general favorite. Also, Blue Clarage, White Cap, Early Mammoth, Reids Yellow Dent and Enslage varieties. Send for FREE Copy of our Catalog.

Everything for Farm and Fruit Garden

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CHAMPION SPECIAL
The Lowest Priced Permanent SILO in the World

SAVE MONEY
by buying a low priced permanent silo. It will last for years and will protect your crops from frost and snow. It is the best investment you can make. Get the full story in our new catalog.

THE NEW CHAMPION SPECIAL SILO
A full description of the new Champion Special Silo is given in our new catalog. It is the best investment you can make. Get the full story in our new catalog.

ROUND CROSCOTTED POULTRY and HOG HOUSES are BEST

Extension Poultry Houses
Circulated or painted. Made to order. Best for any purpose. They are erected in six days. 8 ft. wide and 12 ft. round. Cheapest housing per hen of any house made. Proper ventilation. With brooder and poultry house. From \$4.00 up.

NEW PIGWAM
Farrowing House

4 ft. side wall. Outside door each pen. Ventilators over doors. Sunshine Roof Windows arranged for heat if desired. Cheapest, best house made. Less than \$20.00 per pen capacity.

CATALOG FREE
Showing full line of Champion Poultry and Hog Houses, also a full description of the new Pigwam. Send for your copy today.

WESTERN SILO CO.
Dept. 240 SPRINGFIELD, OHIO



Kill Rats Without Poison

A New Exterminator that Won't Kill Livestock, Poultry, Dogs, Cats, or even Baby Chicks

K-R-O can be used about the home, barn or poultry yard with absolute safety as it contains no deadly poison. K-R-O is made of Squill, as recommended by U. S. Dept. of Agriculture, under the Connable process which insures maximum strength. Two cans killed 578 rats at Arkansas State Farm. Hundreds of other testimonials.

Sold on a Money-Back Guarantee.
Insist upon K-R-O, the original Squill exterminator. All druggists, 75c. Large size (four times as much) \$2.00. Direct if dealer cannot supply you. K-R-O Co., Springfield, O.

K-R-O KILLS RATS ONLY

METAL ROOFING

WE PAY THE FREIGHT

LEADCLAD KEYSTONE COPPER BEARING AND APEX GALVANIZED ROOFING

WIRE FENCE AND BARB WIRE

CONSUMERS MFG. & SUPPLY CO.
Dept. F, Moundsville, W. Va.

The MARKET PLACE

By W. R. WHITACRE

THE production of Iceberg lettuce has increased more rapidly than that of any other vegetable. It has reached a point now where the growers have been forced to control their output and to stimulate consumption. Through their organization they limit the number of carloads that can be shipped daily and have begun an extensive advertising campaign.

I have clipped a number of the advertisements from Philadelphia and New York newspapers and understand that they are appearing in all sections of the country. Vitamins—Concentrated California Sunshine are some of their selling points. There was one, however, that appealed to me. I never could see the sense in eating a salad with a fork as was supposed to be correct and now it seems that I was right.

A Great Relief

"Do you eat your head lettuce with a knife?"

"If you don't you are missing a lot of fun, for to lay open a third or a quarter of a solid head of lettuce with a salad knife is a real pleasure. And it is good form, too. We have the word of a famous book on etiquette for that."

"In Arizona and California, the home of head lettuce, it is universally cut with a knife at the table. And that custom has spread to the East is attested by the fact that three of the great silversmiths of the country are now bringing out a lettuce knife and fork."

"So those people who have been deterred from eating lettuce, because of the difficulty of handling it with a fork alone, may now enjoy one of the most healthful foods known to man without the slightest danger of scotting it across the table."

Advertising Pays

Advertising does stimulate consumption and the advertising of farm products will grow. The Western producer is more progressive in his marketing practices than his Eastern competitor because he has been forced into it by his distance from market. The greatest advantage that the grower in nearby states such as Pennsylvania and New Jersey has is this proximity to city markets, but this very asset is being turned into an actual disadvantage by the careless handling, packing and grading along with a lack of cooperative interest. There is a tendency toward better grading of eastern products and the time will come before long when their superior "freshness and flavor" will be advertised through the cooperative effort of their producers.

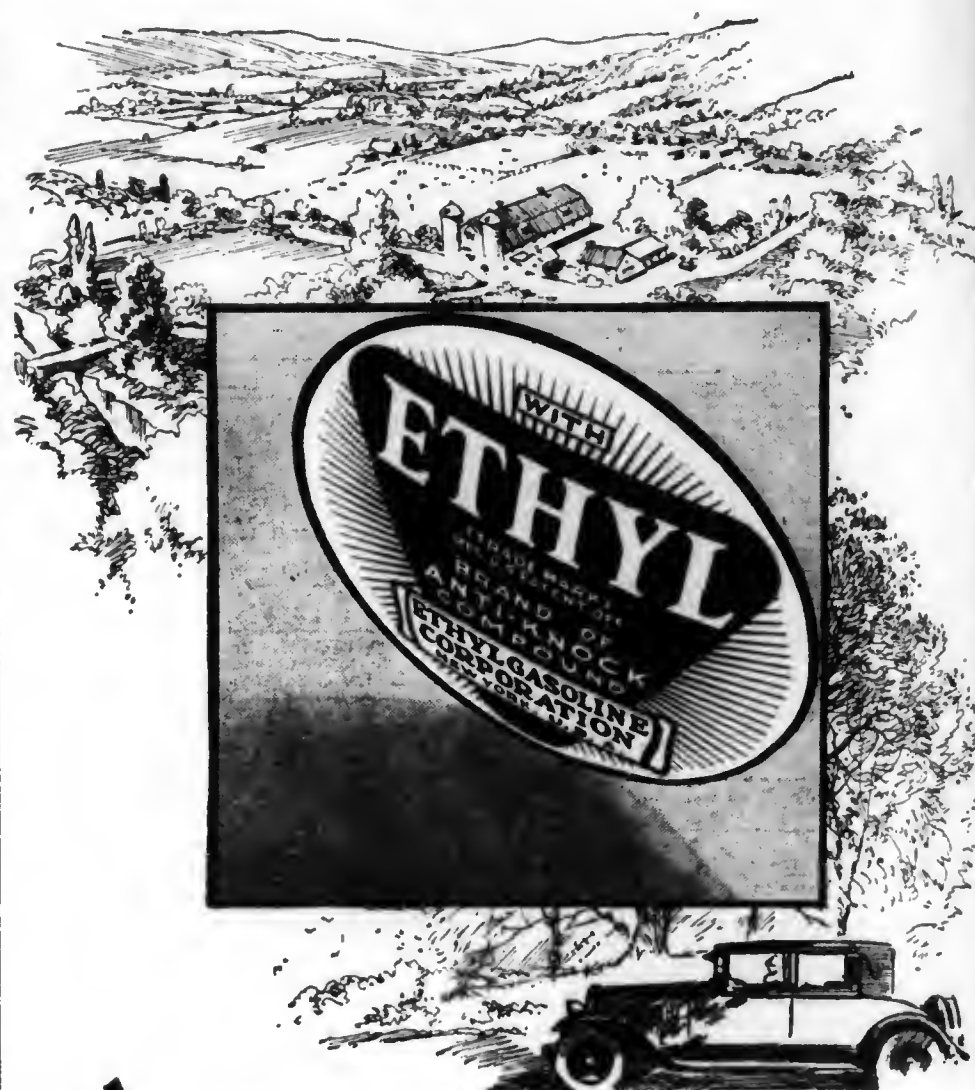
Complete Fertilizer for Oats

It has been recommended to fertilizer users that phosphoric acid is the most generally lacking element in our soils, and many soils do respond readily to an application of superphosphate alone. Especially is this true when a soil is turned and put to a grain crop. However, a phosphate does not seem to have as much effect when applied to a crop planted on a soil that has produced a cultivated crop the year before. Especially is this the case where a corn stubble is planted to oats.

Two years ago, I sowed oats on a corn stubble and on a part of the field I applied a twenty per cent superphosphate and on another part I used a 2-8-5 fertilizer. It was only a short time until I could notice a marked difference in favor of the 2-8-5 fertilizer and this difference kept up favorable to the complete fertilizer until harvest. I am sure that the difference was sufficient to pay a large percentage on the extra cost of the 2-8-5 fertilizer.

A. J. Legg,
Nicholas county, W. Va.

A fine well-kept farm..



A car kept fit with Ethyl

YOUR automotive equipment, in these days, is just as important to successful, economical farming as anything else you buy.

Use Ethyl Gasoline and get the most out of it. With Ethyl, you run less in second, which saves fuel. There is less wear and tear, less engine strain, which slows up depreciation and reduces repair bills. There's less frequent lay-up for carbon removal, which saves time and money.

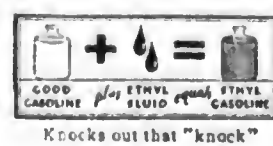
And in those small, old cars ("mud cars") used for rough going, Ethyl makes just as much difference as it does in new, more expensive cars.

Ethyl improves the performance of any gasoline engine because it is good gasoline plus the Ethyl anti-knock compound developed by General Motors Research Laboratories to make gasoline a better motor fuel.

Look for the familiar Ethyl emblem. It represents a premium fuel that is a real economy.

Ethyl Gasoline Corporation, New York City

Wherever you drive—whatever the oil company's name or logo associated with it—any pump bearing the Ethyl emblem represents quality gasoline of anti-knock rating sufficiently high to "knock out" that "knock" in cars of ordinary compression and to develop the additional power of the new high-compression models.



ETHYL GASOLINE

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PENNSYLVANIA FARMER

Published Weekly

Established 1877

Consolidated with PENNSYLVANIA STOCKMAN and FARMER

April 5, 1930



Philadelphia

Pittsburgh

Harrisburg

"B" BATTERY

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WITH

EVEREADY LAYERBILTS

YOU SAVE in two ways when you use an Eveready Layerbilt "B" Battery. A few cents extra bring you from 25% to 30% longer life than is possible with an old-fashioned "B" battery constructed of individual round cells. And you are not subject to the risk of having trouble caused by broken connections and other weaknesses in the "B" battery.

Eveready Layerbilt "B" Batteries are constructed of flat cells with contact direct, from cell to cell. Waste space is eliminated and more active material (energy-creating substance) put into the Eveready Layerbilt. You get all "honey" and no "comb."

Eveready Layerbilt "B" Batteries come in two sizes, the Medium Size No. 485 (price \$2.95) and the Large Size No. 486 (price \$4.25), which is illustrated on this page. Eveready Layerbilt construction is unique and is patent-protected. Only Eveready builds Layerbilts.

Economy and greater dependability are assured when you use an Eveready Layerbilt "B" Battery.

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General Offices: New York, N. Y.

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Unit of Union Carbide and Carbon Corporation

We also make Eveready Raytheon 4-Pillar Tubes—another revolutionary improvement in radio. With their patented 4-Pillar construction, they give an entirely new standard of performance. To get the most from your present radio set, put a new Eveready Raytheon in each socket. Nothing else like them.



Here is the exclusive Eveready Layerbilt construction. Only five solderings and two broad connecting bands, all other connections being made automatically. Waste space eliminated. Layerbilt construction is a patented Eveready feature.

Here is the inside story about every 45-volt "B" battery assembled of separate, individually sealed cells. There are 30 independent cells, connected by 29 fine wires and 60 soldered connections—89 chances for trouble. Note the amount of space wasted between cells.

EVEREADY

Radio Batteries

Farm Facts and Fancies

By ALVA AGEE

THE chairman of the Federal Farm Board, speaking of the wheat situation, says: "It seems to us that the solution of this problem is to adjust our production to domestic demand plus some of the premium (high-protein) wheat just mentioned. There is no possible solution of this problem unless we get the cooperation of the growers themselves. No other industry in the world blindly produces without any attention to potential market possibilities."

Farming is the only industry in this country that is carried on by millions of small capitalists. We want it so, and the price we pay is the result coming from independent planning on all these farms. No one knows surely what the others will do, and each plans for the best income he may get from his land. That usually means that each acre must be made to produce something. He would drop wheat if he could provide with profit. He does not see that something to substitute.

He believes that he must keep his land, his horses, his farm machinery and himself busy, or go to the wall. We can blame millions in a bunch, it may be, but pick out any individual you know, with a family to keep, probably with some interest to pay along with taxes, without the least certainty that acreage is to be effectively restricted, and see whether you can fit blame upon him for making his acres produce stuff for market. I know that Chairman Legge is right about restriction, but what should this individual, whom you know and have picked out as a single instance, do under present circumstances?

An Uncertain Crop

The potato, which was at home in a cool climate, has drifted about over much of the earth, accumulating diseases as it went, and according to the Ohio Experiment Station it is now subject to attack by more than forty of them. Over half of these diseases are found in Ohio or adjoining states each year. A successful grower has a good deal to think about. The most disheartening part of his experience is to get seed that is not free from disease when he has paid for something he believed he could trust. It is not so much the money put into the seed as the crop damage that follows. The former is relatively a minor matter.

Certification is a big help, and it is going to be far more so when all growers of such seed and all certifying officials use the care that some are now using. I think that producers of certified seed in cool latitudes have a much easier task than those in warmer regions.

I used to think that our potatoes "run out," but our scientists now say that diseases drove them out. Maybe so, but I am pretty sure that the potato, liking a cool climate, and being grown year after year in a warm latitude, would show that it was suffering from general debility if no disease ever attacked it.

Mystery Stories

When I go to the public library for books there are far more people in front of the shelves in the section devoted to detective and other mystery stories than in any other one place in the library. They are in my way. The production of books of this class is going on at a prodigious rate, as magazines devoted to book notices and reviews show. Writers are trying to meet a big demand. This sort of reading seems to fit in with moving pictures, radio programs, motor cars and airplanes. The public taste is for action, and if one were engaged in meditation he would be in danger of being run in for examination by an alienist.

Most movies do not appeal to me at all, and so I don't go, and most



A good farm pair. They are owned J. C. Grove of Indiana county, and weigh about 3,000 pounds.

radio programs are pretty light weight, but one can get considerable mental exercise from a clever, well-written detective story. I can understand the justification for such reading by elderly people, but never will amount to much more than they now are, but there is so much literature that young people need their mental training that there is a serious loss to them in the competition for their time and attention to the average movie and mystery story offers. This paragraph has not been written with the thought that it will do anybody any good. Youthful readers will rate it as the highly important view of some one older than they are.

The Dark Side

I should like to call attention to some disquieting features of the world today. The Russian leaders have control of their country's wealth and finance constant propaganda and the discontented of other countries. They believe in Soviet principles and try to undermine the governments what they class as capitalistic nations. Zeal, backed by whatever money is necessary, exerts constant pressure.

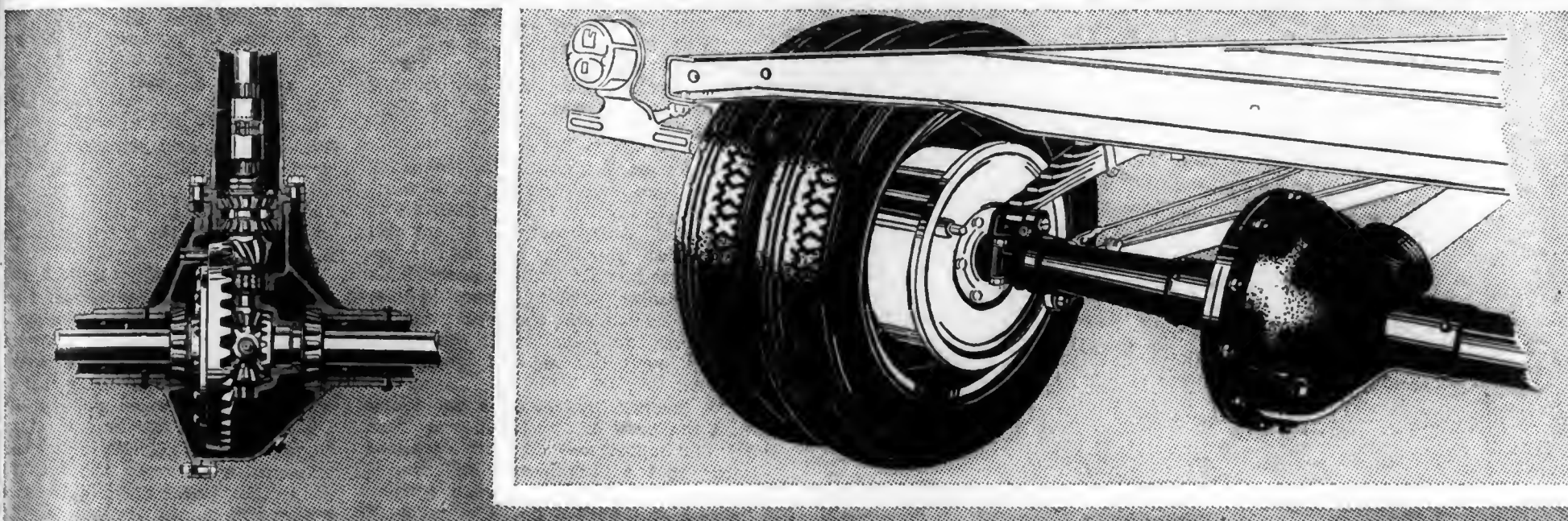
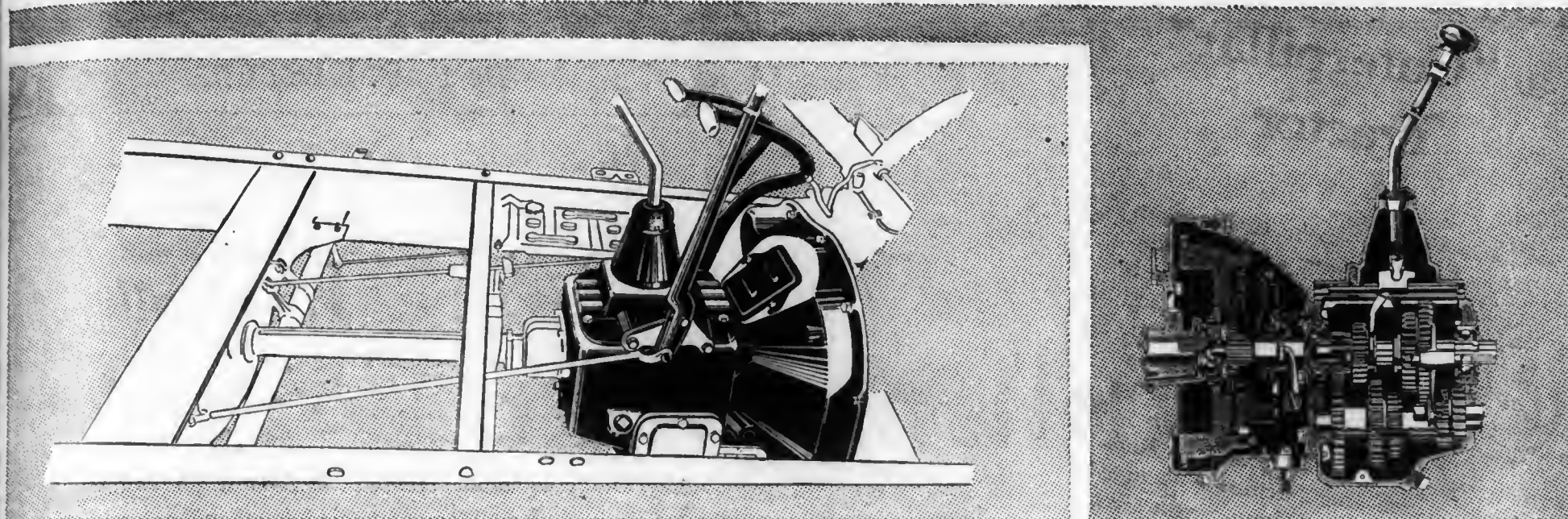
There is no sound basis of understanding among the nations of western Europe, each one believing that the others want to have it at a disadvantage. Great Britain's control of the British Empire has weakened a point where the empire is a loose association of widely separated countries that is less and less capable of helping to maintain order in the world.

When capitalism fails to provide work at good wages, the system is questioned by many, as always has been the case, and millions expect to live to see the day when it will be replaced. They point to the poverty and squalor that exist under the capitalist system in many countries and hold that the argument ends there. The tremendous industrial activity in our own country the greater part of the time since the war has blocked agitation, but unemployment in Europe is continuously serious.

I believe that there is turning a-plenty ahead of Europe and America though it is easy to overestimate immediate effects of unrest. Things move slowly but today, for the first time, agitation to promote change is adequately financed. We can never make nor unmake the world, but we have plenty to do to better conditions within our own country. Our concern is that we attend to our business, and that we stay fully equipped to keep others from attending to it for us. That means preparedness. It is a pity, but I reckon it is wise to wish all nations would cut out of their battleships, but preparedness probably something considerably different from big battleships.

The newer concentrated fertilizers prove satisfactory if used in small quantities than the less-concentrated fertilizers and if well distributed the soil.

4-SPEED TRANSMISSION . . . A wide range of speed and power



NEW SPIRAL BEVEL GEAR REAR AXLE . . . Strength, reliability and long life

New features of the FORD TRUCK

THE Ford 1½-ton truck is a haulage unit carefully designed to provide unusual performance under a wide variety of conditions, and long, reliable service at minimum cost. With 4-speed transmission and 40-horse-power engine, the Ford truck has a remarkably flexible range of speed and power.

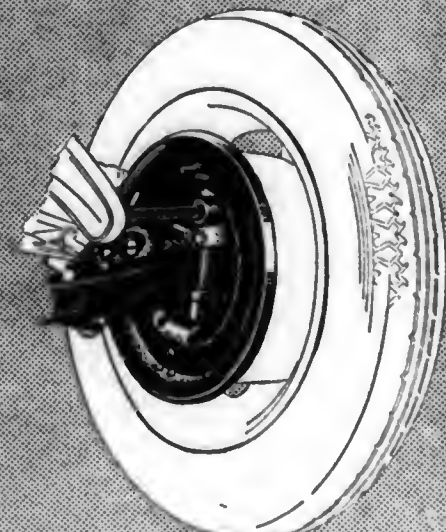
Rugged strength is a feature of the Ford truck. An important example is the new rear axle. It has a special spiral bevel gear, with straddle-mounted pinion. The axle shafts are heavier than formerly, and because of the three-quarter floating type of construction, they serve only to turn the wheels, without carrying any of the weight of truck or load.

The new front axle and spring are heavier and stronger, as are front radius-rod, king-pins, wheel bearings and thrust bearings. Brakes on the front wheels have been enlarged to the same size as those on the rear wheels, providing increased braking area and a high degree of safety. Brakes are of the mechanical type, internal expanding, and all are fully enclosed.

Dual rear wheels are available at small additional cost. Balloon tires of one size are used throughout, with the dual equipment, so that all six steel disc wheels and tires are interchangeable all around. Only one spare wheel and tire need be carried.



LARGER BRAKES . . . Providing a greater degree of safety



You'll "make the grade" with a "Caterpillar" Tractor

SURE—you can make those tough grades in your orchard with a "Caterpillar" Tractor. Let in the clutch—its generous, effective power can take you up—even the soft, sandy hills—up with heavy loads of deep-set tools—killing weeds—saving moisture—or shattering subsoil.

Make the grade—with dependable power and traction that save vital days. Broad, long tracks that tread over wet spots—find sure footing in sand or loose soil. Nimbleness to work close to trees and in tight corners—compact to go under branches.

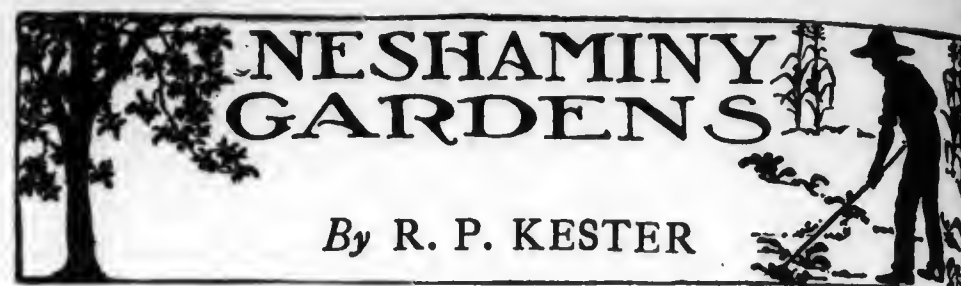
You'll make the grade, too—of rush seasons—of spray times—of thoroughness—of saving wages—making better markets with bigger yields—with a "Caterpillar" Tractor.

Prices—f. o. b. Peoria, Illinois
TEN . . . \$1100 TWENTY . . . \$1900
FIFTEEN . . . \$1450 THIRTY . . . \$2375
SIXTY . . . \$4175

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CATERPILLAR
TRACTOR



By R. P. KESTER

HOW long will that new merchandising institution, the roadside market, continue to be popular? This question came up in the course of a conversation with a friend the other day. I have been thinking about it since. To my mind it will continue as long as people keep house and cook their own food, and the operators of roadside markets furnish fresh, high-class products at reasonable prices.

Not all wayside market proprietors are worthy of continued patronage and success. Many of the little stands are supplied with so few products and these in such meager amounts and ordinary quality that the passing trade is not attracted and will not stop. Often there is no provision made to attract the approaching traveler, nor to display what is offered for sale.

Of course, a make-shift place for display and sale may be used temporarily to try out the possibilities of a location. But something decent and appropriate must be provided if the trade is to be held and increased. This means ample parking room, shelter, display, tables and shade if possible. Our first two days' sales were conducted over boards laid upon two barrels.

At Neshaminy Gardens we found that the bulk of our trade was from regular customers. Of course we had some of the "touch and go" kind—those who came our way but once, bought and passed on. But most of them were "repeaters". Some of them coming once or twice a week throughout the season. That is the kind of trade that is dependable and worth while. But the motto of the seller must be, "First-class stuff at fair prices." Those who start out with the idea of gypping the public in the belief that the buyer is only a chance victim and will not be seen again, are right in regard to the last part, but such persons have failed before they begin.

Produce for the wayside market should be gathered the same day it is sold, and preferably several times a day. This is especially true of sweet corn, spinach and such other stuff as will wilt or deteriorate rapidly. It is the preservation of the "strictly fresh" quality that makes success possible for this kind of market. We have had many people say they thought there must be some particular quality in our soil that made our sweet corn, peas, beans and melons superior to those bought at the green groceries. We never argued the matter with them, but we knew it was because our produce was several hours fresher than what they were used to.

I am confining my remarks to this subject this time because this is the season of year to begin preparations for conducting a roadside market. Plans for raising quality crops should be made now. No general list of suitable crops for every locality can be given. A few things are universally applicable—corn, tomatoes, peas, etc., but every person must study the character of the people who make up the traffic of a given highway.

As a side line flowers would prove profitable in some places, while in others they would not sell well enough to pay for the trouble. The same might be said of many other things. You must not only "know your stuff," but you must know your people as well.

Finally, put up signs, be neat, be courteous, and—above all—be thor-

oughly honest. If you are all this, and more, and have a good location, you will sell goods.

Friendly Talks

By Edgar L. Vincent

I HAVE been away on a long journey. It was far from a pleasant journey with many a quagmire and rough place, thorn infested and beset with briars and all sorts of uncomfortable things. I was snatched away from the things I enjoyed doing. Life suddenly took on an entirely new phase; for a time it seemed uncertain whether I would ever get home. I wonder if this is not like all life, full of lights and shadows, often beset with things that hedge up the way and make life unhappy always stepping off into the dark, never knowing what the future is to bring forth.

Now is it necessary that life should be such a blur of pleasure and sorrow, so mingled with sunshine and shadow? No, I think not. Now I am coming back home, and at every step of the way it seems to me that if we would all take more pains to make life more beautiful for each other, to clear away the pitfalls in each other's way, to wipe away the tears from each other's eyes it would not be long before this would be a better world to live in.

It is splendid to think that there are so many brave men and true women who are now giving the very best there is in them to make life's pathway easier for others, to tear away the briars, to clear away the stones and cheer the hearts of the lonely. This is one thing that has eased my way back home and given life a sunnier aspect. Wherever there is a troop of boys possessed with the idea of doing right or a company of girls banded together to do good, there the morning star shines more brightly, and hope glows more securely for the days to come.

Now, we can all do something at this. In fact, this is the greatest reason for our being here; to try to brighten the pathway for others, to cheer the way for all the sorrowing, to live the good, the true, the heaven blessed life; and if we all do this the day will come when the Big Lamp will be lighted when Some One will be sitting in the beautiful chair and we shall hear Him say, "You have done well; you have helped me. I thank you."

Free Bulletin

FOR the benefit of new owners of combined harvester-threshers as well as the more experienced operators, the U. S. Department of Agriculture has published Farmers' Bulletin 1608-F, entitled "The Operation and Care of the Combined Harvester-Thresher."

This bulletin gives simple directions for starting a new combine, regulating the speed of the cylinder and other moving parts, adjusting the reel and platform, and for the care of the machine after the harvest is over. It also describes the various attachments which may be purchased, such as grain tank, wagon hitch and sacking attachments, straw spreader and buncher, windrow harvester, and picker-up. This bulletin may be obtained free, while the supply lasts, from the Office of Information, U. S. Department of Agriculture, Washington, D.C.

More Readers on Farms in Pennsylvania than Any Other Farm Paper

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Vol. 102

Pittsburgh, Pa., April 5, 1930

No. 14

Soil Organic Matter

By J. W. WHITE

ALL of us who are familiar with the many problems involved in the economic production of farm crops are free to admit that the most important factor concerned is that of maintaining the organic matter and nitrogen content of our soils. Grant this statement as the gospel truth, and it must certainly be, then what are we going to do about it? How are we going to solve this vital problem in the face of a constantly growing scarcity of farm manure?

The answer to this question becomes the theme of my story. As you might suppose, the soil research investigator is concerned primarily with what goes on beneath the surface of the soil, while the farm crops man is most concerned with the crops above the ground. If this be true, then the two working together ought to be able to produce the goods—to find out a few things about the secrets of old mother earth; what she demands and why—how she demands it and when. Now if the two of us can solve why, then that is bound to teach us how and when.

Last summer a party of fourteen college professors from eleven of our leading agricultural experiment stations were privileged to study agriculture in western Europe. The writer was included in this group and we traveled away from the beaten path of most tourists. I shall not at this time enumerate the many unusual things we saw and learned.

Among the many places of interest we visited was a pilgrimage to Darmstadt, Germany, the birthplace of Baron von Liebig, the father of agricultural chemistry. While visiting the humble little house of his birth and his original chemical laboratory, there came to my mind the statement he once made, in 1859, concerning the American farmers: "The deplorable efforts of the spoliation (robbing) systems of farming are nowhere more strikingly evident than in America, where the early colonists in Canada, in the state of New York, in Pennsylvania, Virginia, Maryland, etc., found tracts of land, which for many years, by simply plowing and sowing, yielded a succession of abundant wheat and tobacco harvest."

"We all know what became of those fields. In less than two generations—they were turned into deserts—when it ceases to yield him sufficiently abundant crops he simply quits it and with his seed and plants, betakes himself to a fresh farm."

How true this statement was and unfortunately still is to a certain extent, for many farmers are unwittingly removing from their soil much more than they return and this is the road to soil depletion. Independent of the nature of the fertilizing materials used, and this includes farm manure, the ultimate residual organic matter content of the soil depends on the cropping system used. It is well known that soils in permanent grass invariably contain a higher proportion of organic matter and nitrogen than the same soil type in a system of cultivation. Advantage of this fact is taken in the manner of planning grain rotations, that is to alternate the periods of cultivation with a period during which the soil is left undisturbed. Thus in the four-year grain rotation, sometimes called the "Dutch rotation," followed in the southern half of Pennsylvania, there is a period of 33 months from the time wheat is seeded in the fall till the soil is plowed for corn, when the soil is untilled.

During this "rest" period there is, under a system of proper management, a pronounced recuperative effect which tends to balance the organic matter and nitrogen rapidly lost during the period of cultivation. In other words, the less the cultivation the greater the accumulation of soil organic matter, and why?

During the time the soil is in wheat and grass the old roots are being utilized by soil bacteria as a source of energy. In the absence of an excess of air (oxygen) the organic matter formed both in the bodies of the organisms and the root residues tends to accumulate rapidly. Now when the soil bacteria are utilizing the roots they are fixing the nitrogen from the air. This is due to the fact that soil organisms which have this power such as azotobacter contain in their bodies both carbon and nitrogen. The carbon is supplied from the roots and the nitrogen is taken from the air. For every

which are very soluble and much of them are lost in the drainage water before the corn crop can use them. In fact, where a heavy clover and timothy sod is plowed down there are manufactured more nitrates than the corn crop can use.

At the same time the roots and stubbles decay very rapidly and the reserve organic matter, therefore, suffers severe loss. The longer the system of plowing and subsequent cultivation is continued the more quickly the soil becomes depleted. In other words, the period of plowing is similar to the process of burning the wood which results in a bonfire, eventually leaving only the ashes of your organic matter. The sod period may be likened to the preparation of charcoal where there occurs a building up process with very little loss. It is easy to see now why we like to follow a sod with such crops as corn or potatoes, for these crops are capable of making the best use of the nitrates formed during the breaking down process.

The grain farmer manages his soil so as to have a good sod, for therein lies his salvation so far as soil organic matter and nitrogen are concerned. The old rotation experiment at State College has released to me this valuable secret among many others. The soil which is supplied with lime, phosphorus and potash has been able to maintain its organic matter and nitrogen throughout the 40 years of its life history. The building up sod period has balanced the tearing down cultivated period and there has been established an economic balance even where no animal manure has been used.

When I speak of nitrogen I, of course, mean also organic matter, for the soil nitrogen occurs in the soil as organic matter. The Minnesota Agricultural Experiment Station found that continuous cultivation of wheat resulted in an annual loss per acre of 175 pounds of nitrogen in excess of that removed in the crop. Let me bring this home to you.

This annual loss of nitrogen was equivalent to that contained in 175 bushels of corn or 123 bushels of wheat. To supply this amount of nitrogen in nitrate of soda would require 1,130 pounds or about \$35 worth of nitrogen. The Cornell Agricultural Experiment Station found that in a five-year grain rotation there was an annual loss of 5.4 pounds per acre of nitrogen and where the soil remained fallow for five years and cultivated there was an annual loss of 89 pounds per acre—quite a difference, isn't it? Now let us turn to our old reliable—the Pennsylvania fertility plots (1881-1920)—and bring forth a few more lessons about soil organic matter.

The grass strips which divide the old plots have been in permanent grass since 1867 when the plots were originally laid out. From 1867 to 1881 these old plots were used for miscellaneous tests. Since then we have carried out a definite fertility experiment. The writer found that after 55 years the grass strip soil contained 16,299 pounds per acre of organic matter and 815 pounds nitrogen in excess of the plot soils in grain rotation. Even where the rotation soil had received 120 tons manure in 40 years, the grass strip soil contained over 12,000 pounds more organic matter per acre—quite an argument for sod, isn't it?

At the Snow Shoe experiment fields a grain rotation and a permanent bluegrass pasture have been maintained side by side and treated with the same fertilizer materials. (Continued on page 38.)



America's oldest soil fertility experiments at State College, Pa. A study of these old plot soils has furnished us many valuable lessons on how to use the land and not abuse it.

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THE DEBENTURE PLAN

PRESIDENT LEGGE of the Federal Farm Board has rendered a public service by saying that the export debenture plan, which accompanies the Senate Tariff bill, "will not work" and by showing why it will not. Foreign nations will do just as our country has done, provide for embargoes on commodities dumped on them by means of export bounties or similar government favors. Probably if the debenture plan could be passed and put into effect the first to call for its repeal would be those who are now advocating it, for they have a direct financial interest in maintaining our export trade.

CONQUERED

ANOTHER foe succumbs to science, for the gypsy moth is about to sing its swan song in New Jersey, we are officially informed. Ten years ago this pest first appeared in the state. It was met with plans for its extermination and during the first season more than 2,000,000 egg clusters were destroyed. The following summer thousands of acres of tree growth were sprayed. Last summer only one small colony, containing less than 100 egg clusters, was found and the complete extermination of the insect seems assured. Here is at least one case where it was not necessary to learn to live with an invader.

GRADING LIVESTOCK

A BILL authorizing the Secretary of Agriculture to establish standards for classifying and grading livestock and livestock products has been introduced in Congress by Representative Haugen of Iowa. The Department of Agriculture believes that official grades for livestock are feasible and are desired by the trade. There is no question about the desirability of grades and standards for any farm product, but there is often the misfortune of the products not growing to conform to grade. Even official wool grades, which would appear entirely practicable, have never achieved any great place in the trade. Grading livestock officially is like many other good ideas, excellent to contemplate but hard to execute.

FROM LIFE

SOME years ago a boy who worked in a butcher shop was discharged by his employer. He had only \$13, but with that he

went to a packer and proposed to open an account as a retailer. The packer had confidence in the boy's honesty, so allowed him to buy on credit, telling him to take the meats and see what he could do with them. He sold them and came back for more. Later he found a vacant shop and with the credit he had established was able to secure it and start in business. The packer continued to back him. Today that boy is a retailer with a good store in a fine community. Maybe lack of capital is not so much of a drawback to a start in business as is the lack of some other things.

FRUIT REPORTS

FRUIT growers will welcome the decision of the United States Department of Agriculture to report fruit prospects throughout the season. The first report, issued March 22, indicated that the peach crop has been somewhat damaged by cold weather, especially in the central and northern states. No severe damage is noted to apples and pears, but it is too early to be sure about this. Cherries have suffered in some sections, but the evidence at hand shows no widespread damage to this crop. The need of such reports has been felt by fruit growers, who will appreciate all the information available on the progress of the crops as the season advances. No schedule of the reports has been issued, but it is stated that they will be made "when conditions warrant."

TAX CONFERENCE

THE tax conference held last week under the leadership of the Pennsylvania State Chamber of Commerce brought out several points on which most speakers agreed. They are:

- 1—That taxes have risen rapidly in the past ten years.
- 2—That taxes are not likely to be reduced very much.
- 3—That real estate is bearing too large a share of the present tax burden.
- 4—That present political units are too small to insure efficiency in assessment and collection of taxes.
- 5—That there is much economic waste in present methods of administration.

Many references were made, by speakers not representing agriculture, to the heavy burden of taxation on farm real estate. It is good to see that students of taxation and even commercial organizations are recognizing this situation.

MORE THAN ENOUGH

IN a recent press bulletin Dr. E. B. Forbes of the Institute of Animal Nutrition at Pennsylvania State College says that "the feeding of limestone to cows has not been shown to be necessary under any known conditions." That would have been sufficient to state a scientist's conclusion in the briefest form, but he proceeds: "The inclusion of pulverized limestone costing \$4.50 a ton in cow feed selling for \$50 a ton, however, is held in great favor by some manufacturers. It is said that Moses smote the rock with his rod and that water came forth abundantly. Can it be that the feed manufacturer who smites the rock with his pulverizing mill and sells the ground product for feeding to cows is merely seeking to emulate Moses?"

Such words are unbecoming a scientist who knows or ought to know that the feed manufacturers were not the originators of the use of limestone and other mineral substances in mixed feeds. That originated with and was recommended by those who were regarded as scientists, those who were supposed to know what is essential to the proper feeding of animals. If any substance in mixed feeds is injurious or unnecessary it is the duty of scientists to ascertain and publish the

facts. But it is not their function to assail manufacturers who have followed in good faith the ideas for which the scientists themselves were primarily responsible.

ECONOMICAL POWER

TWO years ago Wayne Dinsmore, Secretary of the Horse Association of America, made a bet that within five years wheat would sell at 75c per bushel on the Chicago market. He thinks he will win the bet, basing his opinion on the increase in man-food acreage resulting from the decrease in horse-feed acreage. He says that all those who are threatened with overproduction should "vigorously support horse and mule production and use," because "every acre diverted from animal power is a potential competitor of their own industry." He advocates the use of animal power "whenever it is efficient and economical," and that is a sound principle. But there may be a difference of opinion about what is economical. Some farmers find it is more economical to save time with mechanical power than to save money with horses—and vice versa. In the end the most economical power will survive, no matter what it is, on farms and elsewhere.

TO SOW LESS WHEAT

A SUMMARY of the expressed intentions of 50,000 farmers on any subject is of interest, but it is of more than usual interest this year in view of the campaigns to reduce production of wheat and cotton. Last week the Crop Reporting Board reported on intentions to plant principal spring crops. The average of all crops indicates an increase of two per cent in acreage but a decrease of 3.7 per cent in the area seeded to spring wheat. The Federal Farm Board naturally and modestly claims credit for this decrease, but probably the prices of wheat and flax have had more to do with it than any propaganda. With a shortage of flax an increase of 27.2 per cent in acreage is indicated. All "intention" figures should be taken for what they are and not for actual crop areas. The weather may change any earlier intentions into different realities.

THE DREAM OF CONTROL

WE were in Western Canada a few years ago when the present great cooperative organization known as the Canadian Wheat Pool was being formed. At that time the old Saskatchewan organization, an efficient and successful cooperative marketing agency, had not been taken over by the Wheat Pool. We discussed with leaders in that movement, both at headquarters and at different points in the West, the objects and possible advantages of the larger organization. In every discussion the idea was expressed that a single great agency could exercise some degree of control over the market. That idea cropped out in every conversation, and we didn't gain in the favor of our Canadian friends by saying that we regarded such control an impossibility. The present condition of the Canadian Wheat Pool, the credit of which has had to be supported by the guaranties of three provincial governments, is the result of an attempt to carry out the idea that some degree of control is possible. Soon or late such an idea is bound to cause trouble and it has brought plenty of it to Canada during the current crop year. The lesson is perfectly clear. Cooperative marketing organizations should stick to their business of marketing and forget the plausible but impossible dream of control. In this country the idea of control exists to some extent. It is expressed in different ways, but still it is evident. The sooner its fallacy is realized the better for all concerned.

AT the annual meeting of members of the Cedarville Auction Market last Thursday evening an increase of nearly 38 per cent in the number of packages sold at auction over the previous year was reported for this past season. In 1929 this market handled 169,000 packages as compared with 63,761 during 1928, and conducted a \$326,424 business as compared to a \$156,715 business during its first year of operation.

This market was open 129 days during the past season and 26 different vegetable crops were sold to 24 different buyers. Buyers have been attracted to this cooperative non-profit farmers' auction market and last year paid 18.63 per cent more for produce than the average New York market quotations on New Jersey produce.

When the market opened in 1928 members had invested \$1,500 in land and buildings, the following year two additional loading platforms were built at a cost of \$1,000. The market has already paid off this debt and has a surplus of \$1,000 with which it is planned to construct loading sheds this spring to store produce for buyers previous to loading for shipment.

The new directors of the association are as follows: Howard Sheppard, Myron Powell and Joe Nardelli were elected for a three-year period. Harry Fisher and Ralph Husted will serve for two years, and John Taylor and Wyle Middleton will act on the board for one year.

A HORSE and buggy slowly plod along a muddy road to get the weekly farm supplies at the village. In a winter evening the family gathers about the stove in the farm-house kitchen to read by dim oil lamps and patiently wait until spring releases them from their bondage.

That picture of farm life has passed into the dim past, and today we find improved roads, automobiles, trucks, radios, electricity, heating systems and other modern improvements in the farm homes. Last summer a survey of Burlington county agriculture was completed to find the changes in acreage of different agricultural commodities produced by these New Jersey farmers since 1925. But this survey also pointed out some changes in rural life.

On 1,283 farms in the county, which includes nearly all farms over 20 acres in size, there were 699 radios. Over half of those farmers, many of them producers of highly perishable crops, may now at noontime receive full information pertaining to the market situation for that day in the New York City and the Philadelphia markets. In the evening a famous symphony orchestra furnishes them with dinner music, a great singer greets them in their home and entertains them, and news of the world reaches them as soon as it does their city cousins. They are no longer shut off from the world.

Plodding teams have been replaced by 934 trucks on these farms. They have brought the city markets to farm doorsteps. The pleasures of the average city dweller were found accessible to these New Jersey farmers, as on the 1,283 farms there were 1,334 pleasure automobiles, more than a car to every farm. Production has been speeded up by power machinery and the use of 668 tractors, while 898 gas engines were found in operation on the farms. Modern conveniences seem to run parallel with the extension of rural electric lines. Of the 1,283 farms 405 had electric lights, 534 running water and 486 heating systems.

RECORDS kept on 4,710 acres of tomatoes in New Jersey last year show that total yield is decidedly influenced by the time of planting. More and more growers are planting early in the field because of this fact. In 1929 those tomato plants placed in the field between May 1 and 15 produced an average of 7.4 tons to the acre. Those planted between May 16 and 31 yielded nearly as much or 7.3 tons. But planting made June 1 to 15 gave an average yield of only 5.7, while later June plantings yielded only 4.9 tons to the acre.

A STATEMENT issued by the New Jersey Bureau of Markets gives the acreage which vegetable growers in the state intend to plant this year as compared with the past season. A slight decrease in the acreage to be planted to cabbage, egg plant, spring lettuce and beets is reported,

New Jersey Farm Comment

By G. W. HARRIS

but in all other cases the same acreage or a slight increase is expected to be planted this spring.

If we could only learn what the weather intentions for the coming season were, or what the Mexican bean beetle planned to do this season, some of the gamble might be excluded from vegetable production.

THE necessity of proving herd sires is strikingly emphasized by comparisons made by E. J. Perry on six Sussex county bulls. There were six bulls on which dam and daughter comparisons could be made based on the cow testers' figures.

Three of these bulls increased milk production on an average of 17 per cent and the other three lowered it on an average of ten per cent. One sire increased production 22 per cent (2334 pounds of milk). His daughters averaged 12,823 pounds of milk and their dams 10,489 pounds.



What might happen if the sentimentalists were held up

The year records on the first six or more daughters are needed to measure the bull's worth and one that is able to maintain or increase high production should find a home in a safety bull pen and be kept from the butcher. A dead site of this type cannot improve a herd.

THE market report sent out by the State Department of Agriculture last week contained some information on early potato plantings which may interest New Jersey potato growers. In regard to Maine potatoes they say:

"The State of Maine has the largest commercial crop on record. To date, there have been 45,000 cars shipped which is around 3,000 cars more than the total movement of any season previous. On March 15, it was reported by authorities in Maine that there were close to 11,000 cars still on hand in the commercial areas. If this statement turns out to be correct it means that Maine will have a total movement of 55,000 cars for the season of 1929-30. Maine is certainly dominating the potato situation this season. Last season at this period, there were about 36,817 cars yet to be moved from all states before the end of the season. This year on approximately the same date, there are around 20,000 cars left in the three states of Minnesota, Idaho and Maine.

"It is estimated by commercial authorities that more than 50 per cent of the potato crop in Kaw Valley, Kansas, has been planted to date. . . . Increased acreage is expected in the Kaw Valley, and the total area is estimated at 13,500 acres, an increase of about five per cent over last season.

"It appears that the acreage commercial growers intend to plant in the second early states (which includes New Jersey) is about five per cent greater than the 1929 acreage, but nearly 17 per cent less than the exceptionally large acreage in 1928."

er than the 1929 acreage, but nearly 17 per cent less than the exceptionally large acreage in 1928."

MANY fruit and vegetable growers throughout the country have equipped their farms with sprinkling and heating systems to combat Jack Frost's unseasonable arrival and to prevent the

damage that nearly always follows. The New Jersey Experiment Station now suggests that cranberry growers equip their bogs with sprinkling systems to provide adequate protection against frost damage.

As the bogs are always located in depressions where there is no air drainage cranberries are frequently hit by frost. In New Jersey this danger exists as late as the first half of June and as early as late August. Although many growers flood the cranberry bogs when frost threatens, this practice is not always possible.

Studies carried on by the Experiment Station last year at Pemberton have shown that sprinkling water on the cranberry vines maintains a temperature of 31 degrees or more, even when the temperature on nearby but unsprinkled vines drops as low as 20 degrees.

BATTERY BROODING

ESSEX COUNTY, New Jersey, is a metropolitan county which has nearly one million people residing within its borders. Another half million folks live within six miles of its boundary, in Passaic, Hudson, Union and Morris counties. Other millions of people live in New York City, Brooklyn and Staten Island, all of which are within 20 minutes drive from the eastern border of the county.

This mass of people makes a wonderful retail market for fresh poultry products (including broilers) but also causes land values in the county to be very high.

The 95,000 laying birds in this small square-mileage county are kept on land ranging in value from \$800 to \$15,000 per acre. Most of the poultrymen have no range for brooding chicks and keep the laying birds confined during the entire year. This method of poultry farming means that labor is an important item in the cost of a dozen eggs as well as in the cost of raising pullets for replacements. It also means that raising disease-free pullets requires plenty of head work.

The introduction of batteries (so-called poultry apartment houses) has been a godsend to poultrymen of Essex county and they have quickly adopted their use. On congested poultry plants it is necessary to get the bulk of the chicks started early so that they are well grown before the

period of soil contamination (and fly season) comes along. Then, too, the poultrymen have found that with hatching the majority of chicks in January, February and March they are better able to keep a fairly even egg production for their retail trade. (Ninety-nine per cent of the eggs and poultry meats are retailed and nearly half of the output is sold at the farm to auto trade.)

Poultrymen of the county are usually keeping cockerels in batteries until marketed as broilers. They keep the pullets in batteries from four to sixteen weeks. In general they keep the pullets in the batteries as long as they are doing well.

Many of the poultrymen are raising broilers in batteries during the majority of the year. These are generally retailed (dressed) to regular customers.

Ninety-five per cent of the laying birds are White Leghorns. The "extra" broilers are chiefly from purchased Barred Rock chicks. One man turns out 1,500 broilers weekly during the entire year and sells them wholesale to one New York commission man (delivered by truck, a 45-mile ride.)

Two-story laying houses are not uncommon in the county. Most of the poultrymen have supplemental incomes. They are chiefly from the sale of fruits, small fruits and vegetables. These are also retailed for the most part. In quite a few instances poultry is a side line on intensive garden farms or on dairy farms (without any pasture).

R. E. Harman, county agent.

THE annual Field Day of the New Jersey State College of Agriculture and Experiment Station will be held at New Brunswick on Wednesday, June 11. At that time the work and activities of the institution will be open for inspection by farmers, amateur gardeners, and homemakers.

The Curtain Rises at Eight

By W. R. GORDON

If you happen to be passing the community building some evening and hear a feminine voice, vibrant with emotion, shouting; "You come one step nearer and I'll shoot," don't summon the police or run home for your gun.

If you see your neighbor approaching, his car piled high with household goods, don't suspect the sheriff has him. If when you're prowling around home some rainy afternoon you miss that flowered dress and cut-a-way coat you used to wear on "dress-up" occasions, don't declare there have been thieves in the house.

These are "symptoms," just as sure as hand-shakin' in a political year. You must have missed seeing the bills in the post office and store, or reading the big news in the "weekly." Well you better hustle 'round and get your tickets to the big show for "the curtain rises at eight."

"All the world's a stage," at least the little world of scores of eager amateurs throughout the state these days. But it's a different one than the work-a-day world. This is a world of romance, of color, of beauty; a world of "make-believe" where hopes come true.

We might add: "And all of us are players." For when we witness the play we not only see it, we live it. We're acting too. The trials and triumphs of the hero or heroine, they are ours.

But acting is not only to be encountered at the play. We're acting a role when we relate a narrative; when we don regalia and perform the ritual of the lodge or even when we approach a business prospect. Perhaps this explains why we are such keen judges of other people's actions. Maybe this is why the theatre has endured for some thousands of years with comparatively little change. Civilized life has always seemed to foster this form of illusion.

Appreciative Audiences

Where will we find an enthusiastic audience as that made up of our own folks? Where a more genuine and sincere appreciation of our talents? Certainly a Barrymore or a Pickford could have no more. Isn't this a worthy community aim in itself, to have a community frankly express enthusiasm over its own giftedness?

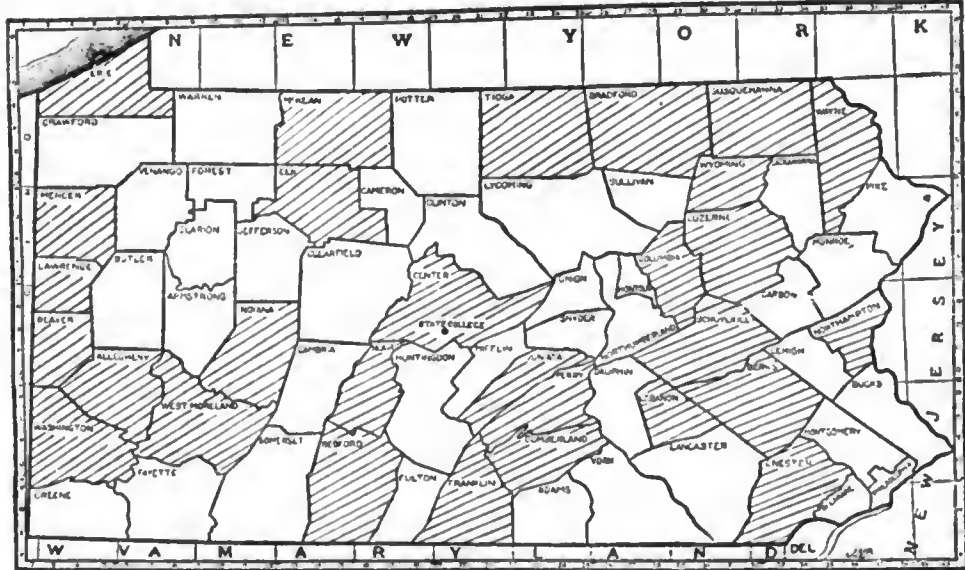
In the past, country life has meant to many a serious struggle for physical and material achievement. Not to all, to be sure. But more and more today there is a growing suspicion that material achievement may in itself prove only a will-o'-the-wisp. It does not always satisfy. Fortunate indeed is the man or woman who has chosen a vocation in which he or she finds a genuine thrill in working at it every day. Most of us need other activities that afford chance for play of our imagination; for the chance to create. There is joy in creating. There is a joy in self-expression that comes to the actor himself. There is wholesome entertainment for the community that encourages this sort of thing.



From 20 years to 80 in 12 minutes. Class receiving instruction in make-up.

Amateur play-making in rural Pennsylvania is out of the "romper" stage. It is outgrowing the cheap melodrama and the conventional three acts of sentimental rot. This is not meant to say that there is a vogue for the "high-brow" play. People don't respond to what is "high-brow" or "low-brow," but to what is a mirrored reflection of life itself. There will be comedy—mild and subtle, gay and frivolous, boisterous clowning. There will be sentiment, of course. But chiefly the satisfying play will have warm, sympathetic, human appeal; a friendly appeal at the level of our own daily lives.

There will be humor, but so will the actor picture with equal understanding the frayed-edges of life; stirring drama and stark tragedy. In the program of these up-to-date amateurs we find bits of history recreated, costume plays brilliant with color, dramatized Bible stories, plays for children—fairy tale and fantasy—and equally impressive, plays of childhood acted by children. Some of these



Not corn-borer territory, but where the "dramatic bug" is active. Each of these counties has had special training in play production for its leaders.

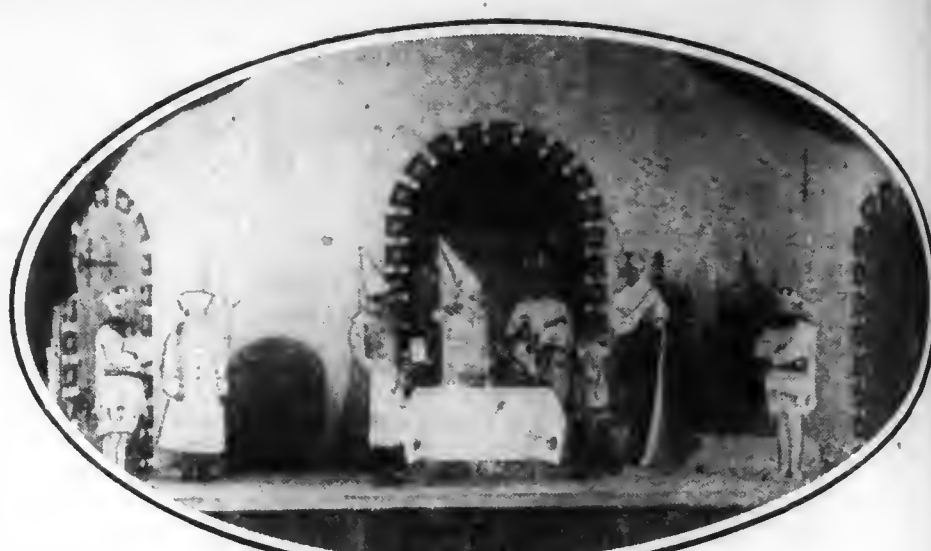
plays that are being given appear in a list at the end of this article.

These amateurs take their art seriously. They want to know more about the technique of play production. Questions fall under the following general heads: How to appraise a play. How to select the cast. How to coach the players. How to stage it. How to costume it. How to organize play exchanges and contests.

Like veteran directors these "home-spun" coaches will slip around to the back of the auditorium while the play is in progress and will watch for the weak spots. These weak spots are invariably indicated by coughing in the audience, shuffling of feet, or general restlessness. In these scenes the play is not "getting-over." After the show the actors will be told about these weaknesses. Suggestions will be given for improvement.

To satisfy the demand for this information the writer has been conducting leaders' schools in counties of the state. Twenty-two counties have had this service. In some the work has been continued for several years.

This play acting has not been without some economic return. The organizations in one county raised \$1,600 in a year for a very worthy educational purpose. Many halls have been built, equipped or remodeled with the receipts from plays. But more and more, plays are being given for recreational value.



Children's plays, Fairy Tale and Fantasy

Who says these amateurs are not alive to the tendency in industry. They are establishing their own mergers. Several in a county will arrange through their representatives to have a winter lyceum of plays. A schedule is made out. Each organization prepares a play and then each play follows a circuit giving its performance in four to ten places in the county. One of our counties this winter had twenty-two communities enrolled in this play exchange plan.

Then again, with such widespread interest there's bound to be rivalry. It's kind of a novelty to turn out to root for the home team of play actors, but the enthusiasm is no less than that displayed at the basketball game, though a little less boisterous. Put yourself in the position of announcing the decision of the judges to a crowd of 700 of these rooters. Better do it tactfully, too.

Some Examples

One section comprising parts of two counties just completed their contest. Seventeen organizations were entered. The Pomona Grange provided \$200 for prizes. Ask any one up there if they ever invested \$200 more profitably. You might ask also if these plays in the finals were not as good as any Broadway successes.

This play contest has had a unique development in three counties of the state. There the plays have been presented at the county fair. Franklin, Centre and Cumberland counties have been carrying on such county-wide contests for from three to seven years. Mrs. J. R. Stear has the distinction for having started the county theater at fairs in Pennsylvania. As a Red Cross worker in Ohio, Mrs. Stear established such a demonstration at the Butler county (Ohio) Fair in 1921. In '23, then a resident of Pennsylvania, she organized a similar theater in Franklin county. It has been a big feature every year since.

According to Mrs. Stear, seven communities entered the first year, and in spite of the fact that a large tent failed to show up, and there were frequent showers to discourage open-air performances, the "show went on" to enthusiastic audiences. Last year there were twelve plays entered, and by this time the towns were taking part too. This made necessary two groups in the competition and two sets of prizes of \$25, \$15 and \$10. Each group is allowed \$25 by the Fair Board for production expense. Local furniture dealers are glad to rent furniture for the staging.

Centre county established its country theater at the Grange Fair in '24. An auditorium on the grounds was fitted up, an addition to the stage built and some equipment constructed. Plays are presented only in the evening, and instead of being one-act performances they are full evening entertainments. Therefore only five communities can be accommodated each year. Admission is the same as in Franklin county, 25 cents, and the approximate total attendance for the week about 3,000. The prizes are \$30, \$20, \$10 and \$5, and in addition each group is given half the box office receipts for their night. Their share will average about \$75.

Cumberland county began in '26 with entries from Granges and schools. They also have a building on the grounds available for this purpose. When the schools perform no admission is charged, but 15 and 25 cents is charged for the Grange plays. Both afternoon and evening performances are given, and there are packed houses for each. Indications are that others will adopt the idea in the near future.

The stage is set, costumes and make-up on. "Overture! Every one on stage and to your places." The curtain rises at eight. (Cont'd on page 23.)

April 5, 1930

PENNSYLVANIA FARMER

(499) 9

A Thinking Job

By Fisher Ames

Copyright, 1929, by Copper-Harman-Slocum Company

coffee, which Rose accepted, he strolled back to join Mr. Welby.

"You were down to the south'ard last night, I believe," he said. "Were you near that fire? From the light in the sky it looked pretty extensive."

Welby gave rather a dry smile. "We were near enough to it to be in it, that's all," he replied. "It looked extensive to me. I can tell you." He hesitated a moment and added: "We—that is, Pouche—staged a little rescue act. The plural pronoun was a slip. It was Pouche's idea. He put it through and pulled me along. Frankly, a fire like that 'gets' me. He's a cool young fellow. A dependable fellow."

"That fits my memory of him," said Hakewill. "I was in a little fix with him myself, not so long ago, on a runaway steamboat. She got out of hand somehow—I'm not engineer enough to know the causes—took the bit in her teeth, and just after we took French leave of her, piled herself on a bar and blew up. I haven't forgotten how Pouche stuck to his post at the wheel. Dependable, yes. And there's something attractive about him."

"There is," said Welby. "I was saying to myself a moment ago it was a pity such good raw material should be wasted in a place like this."

He laughed. "One of the maxims of business is, know what you want, then go get it. I must tell you one of last night's incidents. Pouche certainly



The Cheerful Plowman

HE MADE ME FEEL SMALL

HE made me feel small when my pockets were slack, when my coat had big holes in the front and the back, when my bank account limped and its feet wouldn't track. He made me feel small when my cash was all in, when hoppers were thick and the barley was thin, when mice starved to death in my favorite bin! He made me feel small when I owed him a note and couldn't come through with the sum that I wrote, when I felt all at sea in a floundering boat.

He made me feel small when the heat and the hail beat down all my crops, as it were with a flail, when my chickens all died and my liver turned pale. He made me feel small when my family was ill, when I owed every firm in the village a bill, when the wolf howled beside my doorstep and still, he made me feel small when misfortune was mine, when winds spoke in sighs and in querulous whine, when clouds were so thick that the sun couldn't shine!

I made him feel big when I found him one day when his cash was all lost and his power gone away, when his face was all flushed and his hair was all gray. I made him feel big when I found him dead broke, disgruntled, disgraced by the weight of his yoke, an object of scorn to the mightier folk. I made him feel big when his earlier friends closed up their big homes on the sides and the ends, when he got not a smile from the fellow who lends.

I made him feel big when his bank went ker-smash and his fortunes went wild in the terrible crash, when he needed the price of a portion of hash. I made him feel big when I gave him my hand and helped him to rise and implored him to stand and win back a bit of his place in the land!

I made him feel big when I loaned him the jack to "set up" again and to start "coming back," to win back his home and move out of his shack. I made him feel big though he'd made me feel small. I heard his faint cry though he'd jeered at my call—say, that is the tenderest mentrity of all! J. E. T.

knew what he wanted, though goodness knows why he did, and he literally went through fire to get it." Welby proceeded to relate his story.

Hakewill's interest was marked the moment the word shell was mentioned. "I think I'll wait and see Pouche," he said. "That pretty Miss Nancy expects him back soon."

He got up and stood eyeing the framed section of beam over the mantelpiece. "As you say, it seems a pity such good material hasn't better ground to grow in," he remarked. Then he went out, walked to the land-against one of the posts.

He was still sitting there when Toots arrived in one of the sailing skiffs. Toots instantly recognized the lean, alert figure with its wisp of faded beard and extraordinarily searching eyes with the kindly wrinkles at the corners. Now that he knew how big a man, professionally, Hakewill was, he felt a little shy, but the collector's friendly manner soon put him at ease.

"If you are not in a hurry sit down and tell me all about things," he said. "Well swap experiences since that day on the Blue Heron. I've given up that idea, by the way. It was not so practical as I first thought."

It wasn't easy to make Toots talk about himself, but Hakewill could inspire confidences because one felt the sympathetic, genuine nature behind the rather odd exterior, and because he gave as well as asked. One thing Toots held back, his interest in shell collecting. It seemed ridiculous to speak of his crude efforts to such a listener. It was Hakewill who brought up the subject.

"Tell me," he asked, "why you went back to the Sutter's. Mr. Welby said it was for a shell—but why?"

"It was a calliostoma I'd never found."

"That you'd never found. Then you know them? You've found others?"

"A few, sir. I pick 'em up sometimes—when I can."

"Why?"

"Well, I don't know. I like to. It's more exciting than shooting. They make me think." Toots reddened under his tan, at the admission.

"Have you kept some of these shells?" asked Hakewill. "I'd like to see them. Conchology is my very especial hobby, you know. Come on, let's go back to the Bullseye and look at them now." He declined to be put off and Toots, half embarrassed, half pleased, had to give in.

Hakewill sat down in front of the "collection" with an expression of surprise. He had expected the usual amateurish jumble of familiar specimens, but here was a really large layout, neatly tagged and arranged according to species and forms, with the date and locality under each shell. There were no very extraordinary "finds," but some were locally rare, and several "left-mouthed" shells attested to Toots' keen eye for variations. Hakewill was really deeply interested as well as surprised. He asked a number of questions. After awhile he went down stairs where Rose was waiting for him. "That young fellow has the true urge," he said. "It's astonishing what he's done, with only an elementary manual to guide him."

"He never could keep away from books," complained Rose. "He's doin' well here, but he ain't satisfied. He's hankerin' after an education—always was. It's the weak spot in him."

"Brains, Rose," said Hakewill. "He can't help the craving. It is instinctive in young fellows like him and it's a social crime they can't all have their chance. By jove, he shall have his, though, if he really wants it."

"Meanin' you're goin' to take him away from the Bullseye just when it's beginnin' to coin good money?" asked Rose almost aghast.

"Would you care to live your life here if you were young, even if you were paid for it?" retorted Hakewill. "Toots shan't have to at any rate. I've wanted an assistant for some time and if I ever saw the makings of a good one I see it in young Pouche. I'm not wholly selfish about it, but I can give him something besides a salary—an education—a specialist's training. If he sticks—and I believe he will—the time will come when any big museum will be glad to bid for him."

Hakewill was no believer in delay. With characteristic promptness he called Toots aside and made his offer. "If you're not sure you can't give your whole self to this permanently, drop any thought of it right now," he added. "It will mean hard work, in the field and at your books, and it will be a long time before you can qualify for anything bigger than my assistant. The Bullseye meanwhile may make a good deal of money."

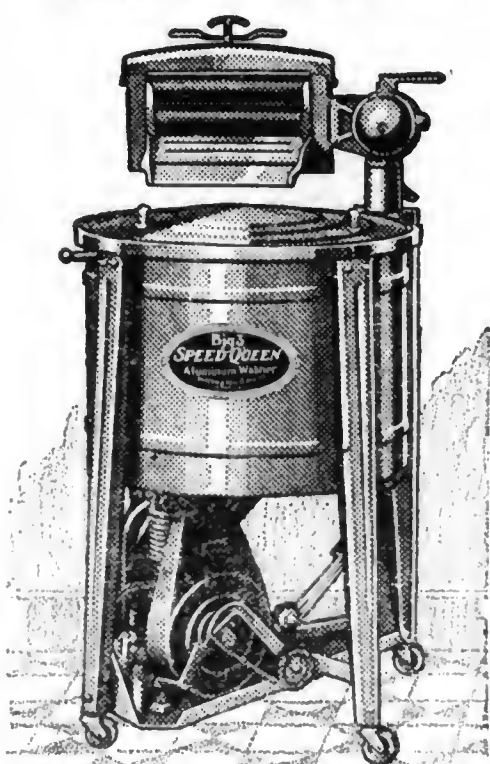
(Concluded on page 25.)

2040 HOURS of actual washing in 35 weeks

THIS is the record-breaking pace set by a Speed Queen Aluminum Washer owned by a Hand Laundry in Butler, Pa. (name on request). It ran from 8 to 16 hours a day, 6 days a week, for 35 weeks—a total of 2040 hours—and is still going just like new. This is equivalent to 40 years of service in the average home.

Only a washer with such fine materials and workmanship as used in the Speed Queen could withstand the constant strain of one heavy batch of clothes after another for so long a time.

This unusual record offers concrete evidence as to why the Speed Queen carries one of the strongest guarantees in the washing machine industry.



Although the Speed Queen sells for \$50 less—it offers you every advantage of washing efficiency, colorful beauty and guaranteed durability found in the highest priced machines. By all means—before you buy a new washer—mail the coupon below.

For homes having electricity, the SPEED QUEEN is available with a high grade electric motor.

SPEED QUEEN Aluminum Washer

BARLOW & SEELIG MFG. CO.
Ripon, Wisconsin
Gentlemen: Please send me printed literature describing the advantages of the SPEED QUEEN for farm laundry service; and tell me also the name of the nearest SPEED QUEEN dealer.
Name.....
St. or R. F. D.
Town.....
State.....

The Shrine of Civilization

THIS morning a young friend of mine—a bridegroom of four weeks time, came into my kitchen and sat in my old-fashioned kitchen rocker as I made a couple of pies and prepared other foods to be consumed by the family during the day.

Our talk was mostly of books, for he is a student as well as a teacher of English. Now and then, however, we chatted of real experiences this young couple is having at real life.

The lad followed me into the pantry when I placed the pies on a shelf to cool.

"Oh," he said, "those pies do look good. We haven't yet gotten organized so the wife can bake pies and things, but I guess we will soon."

And then he went on to tell me how they used to do at home. He said, "Mother always had pie or cake or cookies and fruit handy."

I do hope the dear young bride of a month will hurry and learn to make pies. Homes and civilization are safe so long as our brides and bridegrooms enjoy kitchens and the delicacies in the pantry.

I regret the modern tendency toward tiny kitchens. They may be compact and save time—but what are women as a class doing with the time they save? Is it used toward making better homes? The kitchen should of course be large enough for the family to gather around and lend a helping hand.

Kitchen Confidences

One of our favorite stunts was to do all the dishes, including clearing of the table and putting away every dish, without any one taking a step. Fun—why that was more fun than the sophisticated youngsters of today have at their high-priced hotel dinner parties.

A kitchen rocker, chintz covered, invites confidences. It is always easier to tell mother things while kitchen activities are in progress.

I love experimenting with all the new household contrivances. I have a steam pressure cooker, waterless cooker and an electric cooker that will cook an entire meal (including a steamed pudding) in the one utensil, with but one switch—and so on through the list of newer kitchen utensils.

The modern methods of cooking have eliminated drudgery from the vocabulary of the housewife. We who keep house today have leisure that our grandmothers could not have conceived.

How pretty dishes are today. The colored glassware gives charm and gaiety to any luncheon or dinner table. I had not seen any colored glass in yellow until the other day. I quite held my breath, when I spied the charm of a friend's dinner table. Possibly the shade was nearer amber than yellow—but I want some like it.

Mother Reigns Here

And how cool looking is the green glassware! A well cooked dinner, nicely served, is as much a work of art as any painting—and much more satisfying to many at least.

Of course a kitchen should be immaculate. It should fairly shine with cleanliness. Don't you have a feeling your whole house is clean when your kitchen is clean and in order?

A piece of copper on a window sill, which will catch and reflect the sun's rays, rests one's eyes when entering the kitchen. Color, riotous color, our kitchens must have.

But how dead a place even the most gorgeous kitchen would be without Mother. It is in her home, yea in the heart of her home the kitchen. Woman is at her best. The woman at home, cooking and baking for her family does not have time to develop complexes.

Ah, let me go into the house of the stranger through the kitchen and I will pretty well characterize the home for you. It is the kitchen that

gives atmosphere and character to a house and makes of it a home.

Our country is safe so long as the kitchen remains The Shrine of Our Civilization. May H. Mumaw.

Our Children's Feet

IN buying hose for children see that they are large enough, but not so large that they wrinkle across the ball of the foot or over the toes. A short stocking may bend the toes out of their proper position and a wrinkled one often causes a blister. The careless darning of hose at heel or toe is also inadvisable, and if a heel must be mended, use a soft cotton yarn and a fine crochet hook and crochet a new heel or as much as may be necessary, working from the edge of the hole to the opposite edge and fastening carefully along the sides.

In buying children's shoes be careful to get them long enough. A little lad was taken to a famous specialist. He was thought to be suffering from what was called the dreaded hip joint disease. Fortunately the specialist was versed in small things as well as serious ills, and he told the mother to go home and buy the child longer shoes, changing for a new pair at least every three weeks. The fact that his toe pressed against the end of the shoe had caused him to favor that foot, throwing it out exactly as is done when there is a hip disease. Three months of careful shoe fitting brought about a complete cure.

When children wear wool hose or Boy Scout hose, or adults wear wool for hiking, hunting, fishing, etc., care should be taken in washing them. Wash in warm suds, rinse in water of the same temperature. Squeeze dry but do not wring. Then pull them over shoe trees, or lasts, to dry. These should be of the same size as the foot and hose dried in this way will never shrink nor become uncomfortable.

Wool hose and all colored hose should always be dried in the shade.

Foot odors are unpleasant, and yet there are few families without at least one sufferer. Usually the nervous child has feet that perspire excessively, and even a daily changing of hose seems only a partial preventive of odors. Wash the hose daily and dust the inside with powdered borax when dressing. Every morning just before putting on the shoes sit a little borax into them and if the feet perspire excessively, use a little when the shoes are taken off as well.

Keep Your Napkins White



NAPKINVELOPES are a positive necessity. The ones we are offering are bound with yellow calico-print bias fold and have birdies of the same on the outer flap. The material itself is a cretonne weight in horizon blue. Blue covering helps to keep white linens from turning yellow. These napkinvelopes come to you cut out, with bias binding, applique bird or birds, embroidery floss and instructions included.

Number 225 is the single bird for the tea napkins. No. 226 the sociable two birds for dinner size perhaps, al-

Children very often come in with wet shoes, and the smallest child should be taught the necessity of putting wet shoes off the feet as soon as possible. Do not put the shoes on a hot fire, but fill with hot oats or let stand in a moderately warm room or on a shaded side porch. This will keep the shoes from shrinking, usually from hardening, although some cases it may be necessary rub in a little fat, if the leather has been thoroughly soaked.

L. M. Thornton

Resting Rugs

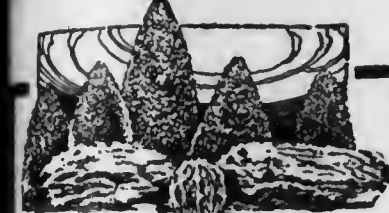
THE other day I saw a rug on the edges and some spots as good as new, but the rest in it had been worn constantly in some places and not in others. The mistress of the house remarked that the family was "hard on floor covering" and also that the floor beneath was rough and uneven, so it was no wonder things looked so shabby. She mentioned that she was not able now buy a new one and the old one was hard to do.

All that could have been avoided a little care. Some housewives rest their rugs, just as they rest their shoes. Two pairs of shoes worn alternately will outwear two pairs bought in succession and worn constantly, as many people know, and the habit of using one part of the rug this month and another next month will do wonders toward making the last longer.

By changing the furniture about and turning the rug end for end, extra wear can be obtained. If the table stands in the middle of the living room a month shift it to one side later. If a worn spot appears on the furnishings so that people do not walk over that spot constantly, extra small rugs brought in on rainy days will save much wear and often it is good policy to take the good rug up for December, January, February and March and substitute an older one saved for this purpose.

If the floor is rough take a pad and smooth off the high spots or cover evenly with a padding of newspaper as we used to do with the rag carpets. The floors will be warmer and the wear and tear less. Every few months new newspapers can be used and the dust disposed of.

By the doors little rugs that make as nearly as possible the rug rug can be used part of the time or all the time. The aim is to make the wear evenly all over and look as long as it lasts.



This Week's Special
8 Evergreens \$1.80
Norway Spruce, 2 Arborvitae, 2 Austrian Pine, 1 Juniperus Communis.
These trees are 5 to 6 years old, all are transplanted in the nursery.
Order NOW for Spring Delivery

"God Tree of Himalayas" \$1.15
Cedrus Deodard, the world's most beautiful evergreen. Silvery blue color. Trees 1 to 1 1/2 feet, each \$1.15. 1 1/2 to 2 feet, each \$1.75.
Manilla Trees, 1 to 1 1/2 feet, 2 for \$1.15; 1 1/2 to 2 feet, each \$1.55.
Hardy Azalea, Coral Pink, Noddy, rich, early bloomer, each \$1.50.
Yellow, orange, beautiful, 2 for \$1.55.
Gardenias, in red, pink and purple, large plants, 2 for \$1.50.
Niece Niece
Rose Wonderful, 2 for \$1.15.
Japanese Barberry, lovely plants \$1.15.
Gerade Blue Spruce, 7 years old, \$1.10.
Be value
Special—12 Blue Perennials, \$1.55
A selection for all summer bloomers.
Exhibition Chrysanthemums, \$1.15.
Pink, orange, yellow & white, 8 plants, \$1.15.
Panama, same color, 8 plants, \$1.15.
No. 12 Novelty Snapdragons, a wonderful assortment, \$1.10.
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No. 15 Double Flowering Gladiolus, the assortment, \$1.10.
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Will bloom all summer.
Send for Packing and Insurance

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A TWO-PLOW TRACTOR adapted to all lines of farm work, has a wide range of usefulness—for drawbar and belt power operation.

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Has more good features than any other tractor, some of which are three speeds forward, thermomatic engine temperature control, oil filter, two air cleaners, pressure oiling system, Bosch magneto. Operates with gasoline, kerosene or distillate.

WRITE FOR FOLDER and easy payment plan. We also have a complete line of steam engines, threshers, saw mills, tractors and accessories.

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More than with most any other crop, your choice of seed potatoes determines the size and quality of the crop. We have the best heavy yielding, northern-grown, disease-free varieties, such as Cobblers from Maine, Russets from northern Michigan, State Certified, and grown from tuber-unit seed, selected after three inspections, and choice Lancaster County Russets grown from last year's Michigan Certified. Write for prices today.

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Flower Garden—Hydrangea, Lilac, Forsythia, Snowberry, and plants field grown—hardy.
Introductory Offer
Each shrub, four to 6 ft., \$1.75.
1-year plants, \$1.00.
2-year plants, \$1.50.
We have the best New Seed Annuals, perennials, and flowering shrubs in color—valuable information, direct from grower, at low prices. Write for seeds, order now—today!
J. B. SEED COMPANY
Mechanic St. (67) Jackson, Mich.

Experiments in Sub-Irrigation

WHILE experimenting with paper mulch and with dry earth mulches during the season of 1929 I had an experience that may interest those who are not wholly dependent on rain fall to supply water to the garden crops.

For the purpose of testing the relative values of paper mulches and dry earth mulches, six rows of sweet corn, each 24 feet long, were planted early in July, merely for the purpose of this test, and not with any expectation of maturing a crop so late in our short season. The rows were laid out across a gentle slope. Adjoining on the high side were two rows of late garden peas. The low side of this sloping plot adjoins the lawn surrounding the residence. Mulching paper was placed between the rows in the east half of each row in this plot and a dry earth mulch was maintained over the west half of each row by shallow cultivation after each shower that wet through the dry top soil.

No rain fell on this plot during the last week of July and the month of August. When the mulching paper was spread for this test the top two inches of the soil was already dry, so the east half was unintentionally double mulched. Nor had I any intention of supplying water artificially by spraying with a hose, as that would defeat the object of the test. The lawn was not watered and all except that part accidentally watered by sub-irrigation seemed to be dead.

Lawn Turns Green

The two rows of garden peas were watered three times each week with a hose during the drought period. The peas were mulched with sweet clover hay. The writer thought he was using just enough water to keep the pea vines green, and was surprised after a week's watering of the peas to find that a strip of the lawn, ten feet wide alongside the corn rows, was turning green and owing to its rank growth had to be trimmed with lawn mower every week during August.

The surplus water applied to the peas seeped fifteen feet across the corn plot between the surface and the subsoil and ten feet across and under the lawn sod. It was a demonstration of sub-irrigation.

After noticing that the ten-foot strip of lawn was turning green I quickly recognized the signs of a subterranean movement, because I have practiced sub-irrigation in other parts of the same garden where topography was more favorable. I dug a trench 40 feet long 12 inches deep with fall of two inches for the entire distance and laid two-inch farm tile the entire length with an elbow at the high end to receive the nozzle of the hose.

After an Inch of Rain

This system of sub-irrigation cannot be put in operation until after an inch or more of rain has fallen and spread itself over all the exposed surfaces of the soil grains. Then surface tension will pull all the water that is dribbled into the tile in a small stream and spread it over an area extending fifteen feet down the slope and six feet up the slope, or a total area of 21x40 feet. The day following a goodly shower the dribbling stream may be turned in and will soon be leaking from each one of the 40 joints between the tiles to be carried in all directions by surface tension. It should be kept running all day if the weather is warm and the air dry.

After experimenting for ten years in my own garden with sub-irrigation it is my judgment that supplementing the seasonal rainfall with a trickling stream fed through farm tile combined with mulching assures an economic and successful method of using extra water in the production of garden crops. It also tides the gardener over the dry periods.

H. R. Hilton.
McKean county, Pa.

How New Jersey "Chief Spud" title was won

ALL records for the event were shattered when Bennett & Thomas, Belvidere, turned in a 496 bushel average acre yield to win the New Jersey Potato Growing Contest of 1928—and the title of "Chief Spud."

"Last year we joined the 300 Bushel Potato Club of New Jersey," write Bennett & Thomas. "We planted about 20 bushels of seed per acre in rows 34 inches apart; the seed being placed 11 inches apart in the rows. "We used 1000 pounds of Swift's Red Steer 0-16-0 Acid Phosphate (Superphosphate) broadcast, and 1200 pounds Red Steer Fertilizer 4-8-7 was used in the rows when planting.

"We have used Swift's Red Steer Fertilizers for the past 5 years and have always received them in good mechanical and drilling condition. Their slogan, 'It pays to use them,' is surely true."

Successful farmers the country over are coming to appreciate the importance of quality in fertilizer. Many are turning to Red Steer. For Red Steer carries with it an assurance of quality. In addition to the usual "guaranteed analysis" tag, you will find attached to every bag of Red Steer a Certificate of Quality. This assures: BEST MATERIALS—plant food from the most productive sources.

DOUBLE MIXED—fertilizer thoroughly and evenly mixed and in good drilling condition, so that each plant will get its share of plant food.

TRIPLE TESTED—in fully



Theo. K. Bennett, of Bennett & Thomas, Belvidere, N. J.

equipped laboratories, assuring the right plant food in the right form and amount.

For new profits in 1930, ask your Authorized Swift Agent about Red Steer 7-11-7; 3-12-15 and 4-16-10—the money-saving high analyses.

Swift & Company

Fertilizer Works
Hammond, Ind. Cleveland, O.
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Champions All!

They use and recommend Swift's Red Steer Fertilizers
ROSCOE POWELL, Browning, Mo. Champion National Corn Show, Hannibal, Mo.
J. V. COCHRAN, Marietta, Ga. Champion, single cotton stalk division, Southeastern Fair; Champion, single stalk, National Cotton Show
BENNETT & THOMAS, Belvidere, N. J. Champions, New Jersey Potato Growing Contest
HENRY HEILAND, Thomasville, Pa. Seed Corn Champion of Pennsylvania

Swift's Red Steer Fertilizers

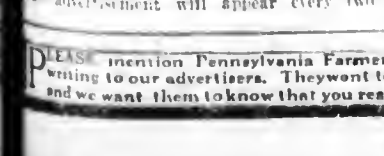
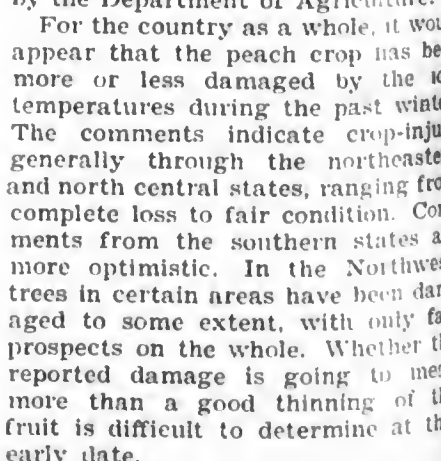
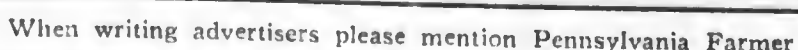
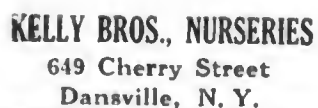
"It pays to use them"

Look for this Certificate of Quality!



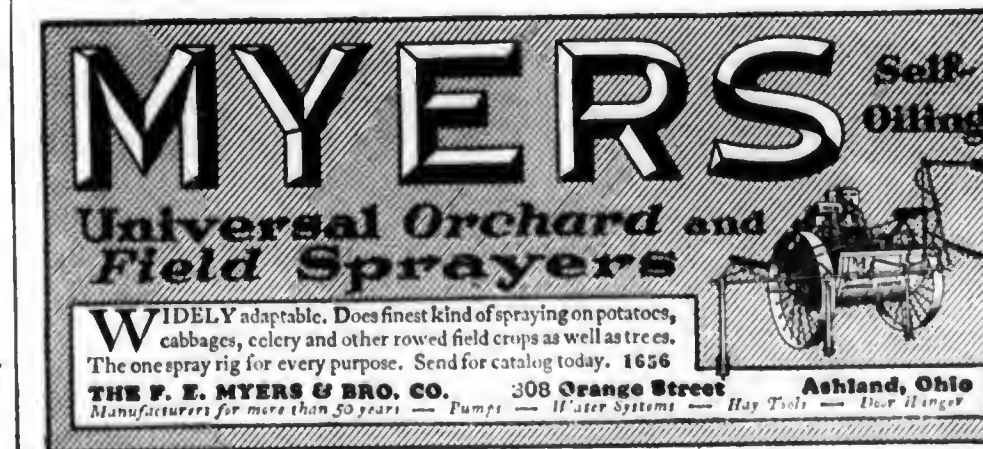


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An attractive farm sign lends a dignity to the farm entrance, displays the name, and advertises farm produce to passersby.

Ceresan for Grains and Cotton SEMESAN for Flowers and Vegetables
SEMESAN JR.
for Seed Corn



Here's the FOOD Your Corn Crop LIKES

It is just another corn crop for you this year, or have you decided to join the ranks of farmers who make a crop that really is a crop? Now is the time to decide... and you can just as easily make a good crop. No luck to it... just one single rule for success.

Chilean Nitrate of Soda is the difference between a good corn crop and a poor one. A side dressing with this nitrate fertilizer (the only natural nitrate in the world) greatly increases the yield. Hastens maturity. Makes larger ears with more corn per ear and more ears per stalk.

Chilean Nitrate is not synthetic. It is mined and refined in Chile, largely by American capital, brought here in American ships and sold to American farmers at a low price. Its small cost is returned to you many times over in increased crop profits.

Free Fertilizer Book

Our new book "How to Fertilize Corn in the North" tells how to make a real corn crop. It is free. Ask for Book No. 6, or tear out this ad and mail it with your name and address written in the margin.

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530 Citizens Bank Bldg., Columbus, Ohio

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TRACTOR-DRIVEN
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United and other tractors.
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Apply WARNER LIME

Uniform hydrates will benefit the
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Packed in 50 lb. paper bags—easy to handle.

"LIMOID"
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ASK YOUR DEALER

What Our Readers Say

Women Drivers

I HAVE just read the article written by S. W. about women driving cars. I certainly do not agree with him on any of his statements. I have two daughters who drive cars and there are many more girls and women in our community who drive cars, and I would much rather meet any one of them on the road than a lot of men driving (half or entirely shot) with bad booze, or some of the young smarties trying to show off or racing.

As to them waiting for a man to change a tire, I am sure that either of my girls will change a tire just as soon as S. W. will. They can also cook and bake or do anything else that a good robust country girl can do.

In our community I have never known a girl to run over any one, but quite a few have been run over by men, and as to the cops passing them by, I will give an instance that happened a few weeks ago near my house, where a "Stop" sign stands at a road entering on the Easton and Philadelphia Highway. A cop happened to be watching. Along came four machines, three men and one woman driving them. He pulled them all in, men and woman. The woman paid her fine the same as the men.

I think that women drivers are just as safe to meet on the road as the men and oftentimes much safer. I have been a reader of your fine paper a long time and count it one of the best farm papers of the day.

Chas. C. Melchor.
Bucks county, Pa.

Champion Rodent Catcher

IN Pennsylvania Farmer of March 8th appeared a small article about Mr. Frank Auchbach of Lebanon county, Pa., the 1929 champion rat and mouse catcher. A number of inquiries have been received by Mr. Auchbach from persons whose premises are overrun by the small pests, and by the permission of Pennsylvania Farmer the writer of the article will try to impart the main methods used by the successful champion.

Mr. Auchbach says: "To catch mice, I use the small, inexpensive mouse traps. Both the single snap traps are used and the circular four-hole trap which will catch four mice at one setting. Choice bits of meat and cheese, etc., are used as bait. It is a change for the mice's diet of whole grain, chop and other ground feed. The traps are set in the granary and chop chests and mash containers mostly.

"The rat story is very different. These ugly animals are mostly too wise to be caught in baited rat traps and their use was chiefly unsuccessful. A dozen and a half small steel traps were bought. These are the small size traps which are used to catch small fur animals, such as skunks. Anybody can catch as many rats as I did if they use perseverance. Sometimes it requires half a dozen traps to catch a single rat, set and arranged differently, nightly, for a week or until the cunning fellow makes one false step—plump into a concealed trap.

"At our place the floors are concrete mostly and the rats break into the granary, corn cribs and chop boxes. There are holes outside the corn shed and about the barn and chicken houses. These are the places where I made my record. Outside I set the traps about the holes, cover them with chaff and tie them fast. Inside I do not tie the traps because the openings are too small for a rat to drag a trap away. Outside I cover the traps with boxes so that the cats will not be caught. Two or three were caught in traps lately in spite of these precautions. Fine hay is used to hide

For Distinguished Service

AN annual award of a gold medal and five thousand dollars in cash is announced by Senator Arthur Capper "to provide a concrete expression of gratitude to some of the people who make contributions of national importance to American agriculture and to assist in stimulating public appreciation of unusually fine service to our basic industry."

Any living American who has rendered distinguished service to agriculture of this country is eligible for consideration. No time limit is imposed as to when the service was performed. The first award will be presented next December. Communications concerning this award should be addressed to F. R. Nichols, secretary of the Committee of Awards, Capper Building, Topeka, Kansas.

the traps too, but it is apt to set down rather solid while chaff will not. "I make the rounds of my traps often as late as midnight and find again the first thing in the morning. The rats that are in the traps are killed and need not suffer unnecessarily long. Some nights are successful ones, five or six rats being trapped. Then, again, several nights bring empty traps only. Very often, too, traps are sprung but the rats get away. Sometimes parts of the fur show how narrow a square it was for some robber rat.

"These then are the main facts of my success. Most persons give up after one or two failures. The longer a rat in a hole doing nightly damage escapes my traps the more determined I get. Often it is a battle of wits, but if I wait long enough and use enough traps and arrange them a dozen ways or more I know that I will win at last."

Robert I. Weigley.
Lebanon county, Pa.

A Tramp's Industry

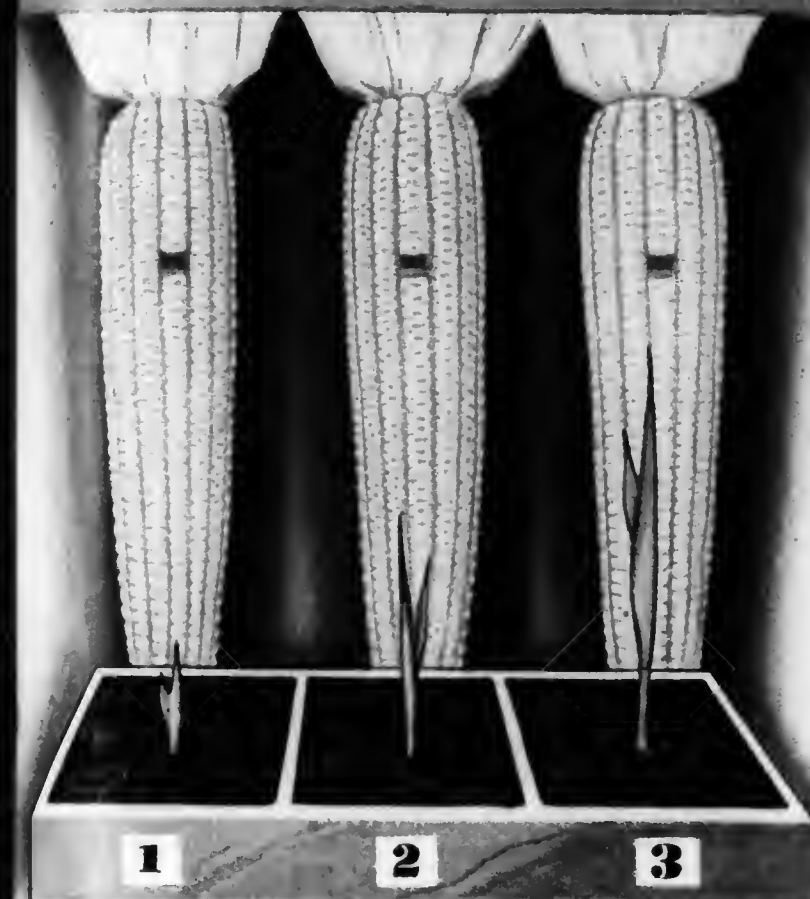
TIMES agriculturally were very good about 1890. Industry in its modern sense had not been born. Tramps were frequent. They dropped off the railroad for a bite to eat every now and then—weekly would be staying the case altogether two months once four came in one day. Mostly they were a dead level of sloping fellows, but one morning an exception turned up. He came before breakfast and while waiting for his cats he went to the barn and looked up the tools to clean the stable.

Dad's stable was not much of a paradise. Occasionally a restless critter would fire a lusty foot across the narrow passage and convert the sliding cover of a "dung hole" into kindling. That was a spring morning and probably the enclosures were in just that condition. The writer was only a kid then, the size to stand around and take notice. This tramp wore an old corduroy reefer—I can see him yet. When the manure had been forked out and the floor scraped with a shovel the tramp found an old discarded broom somewhere; he found it for surely no broom was ever kept in the barn.

With this old crippled broom he swept the stable clean. I don't know that the old stable was ever swept again, but these days when I sweep my own stable with a first-class broom I hail the tramp. In the spring birds of passage sing to us for a day and fly on, but we remember their notes—that's the way it was with the tramp, "gone but not forgotten."

H. D.

Judge by Results Alone



Three ears—all look alike. But note the difference. Seed from ear No. 1 would produce a poor crop; No. 2 a fair crop; No. 3 a prize-winning crop. U. S. Department of Agriculture Bulletin 414 says: "Seed selected from the high yielding rows of a breeding plot produced 18 bushels more per acre than equally fine-looking seed from a general field of the same corn."

Write us for U. S. Department of Agriculture information on seed corn. Address: FIRESTONE TIRE AND RUBBER COMPANY, Akron, Ohio
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Tires may look alike, even as seed corn - But what a difference!

JUST as you carefully select and test seed corn to get the greatest yield, so Firestone selects and tests rubber and cotton to give you the greatest yield of mileage and safety.

From Singapore and the great Firestone Rubber Plantations in Liberia, the best grades of rubber are selected at savings which are passed on to you in tires of extra quality, at prices no higher than ordinary tires.

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Like seed corn, tires may look alike until you know the difference. Let the Firestone Dealer show you why Firestone Gum-Dipped Tires hold all world records for Safety, Endurance and Mileage. Then, Judge By Results Alone!

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Here's the FOOD Your Corn Crop LIKES

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Cut twenty to thirty acres a day. Models for use with McCormick-Deering 10-20, Fordson, Caterpillar 10 & 15, United and other tractors.
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Apply

WARNER LIME

Uniform hydrates will benefit the crops you plant this spring

Packed in 50 lb. paper bags—easy to handle.

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Bucks county, Pa.

Champion Rodent Catcher

IN Pennsylvania Farmer of March 5th appeared a small article about Mr. Frank Auchenbach of Lebanon county, Pa., the 1929 champion rat and mouse catcher. A number of inquiries have been received by Mr. Auchenbach from persons whose premises are overrun by the small pests, and by the permission of Pennsylvania Farmer the writer of the article will try to impart the main methods used by the successful champion.

Mr. Auchenbach says: "To catch mice, I use the small, inexpensive mouse traps. Both the single snap traps are used and the circular four-hole trap which will catch four mice at one setting. Choice bits of meat and cheese etc. are used as bait. It is a change for the mice's diet of whole grain, chop and other ground food. The traps are set in the granary and chop chest and much on runners mostly.

"The rat story is very different. These ugly animals are mostly too wise to be caught in baited rat traps and their use was chiefly unsuccessful. A dozen and a half small steel traps were bought. These are the small size traps which are used to catch small fur animals, such as skunks. Anybody can catch as many rats as I did if they use perseverance. Sometimes it requires half a dozen traps to catch a single rat, set and arranged differently, nightly. For a week or until the cunning fellow makes one false step, plump into a concealed trap.

"At our place the floors are concrete mostly and the rats break into the granary, corn cribs and chop boxes. There are holes outside the corn shed and about the barn and chicken houses. These are the places where I made my record. Outside I set the traps about the holes, cover them with chaff and tie them fast. Inside I do not tie the traps because the openings are too small for a rat to drag a trap away. Outside I cover the traps with boxes so that the rats will not be caught. Two or three were caught in traps lately in spite of these precautions. Fine hay is used to hide

For Distinguished Service

AN annual award of a gold medal and five thousand dollars in cash is announced by Senator Arthur Capper "to provide a concrete expression of gratitude to some of the people who make contributions of national importance to American agriculture and to assist in stimulating public appreciation of unusually fine service to our basic industry."

Any living American who has rendered distinguished service to agriculture of this country is eligible for consideration. No time limit is imposed as to when the service was performed. The first award will be presented next December. Communications concerning this award should be addressed to F. E. Nichols, secretary of the Committee of Awards, Capper Building, Topeka, Kansas.

the traps too, but it is apt to set down rather solid while chaff will not. "I make the rounds of my traps often as late as midnight and the again the first thing in the morning. The rats that are in the traps are killed and need not suffer unnecessarily long. Some nights are very successful ones, five or six rats being trapped. Then, again, several nights bring empty traps only. Very often, too, traps are sprung but the rat get away. Sometimes parts of the rat and fur show how narrow a squeak it was for some robber rat.

"These then are the main facts of my success. Most persons give up after one or two failures. The longer a rat in a hole doing nightly damage escapes my traps the more determined I get. Often it is a long battle of wits, but if I wait long enough and use enough traps and arrange them a dozen ways or more I know that I will win at last."

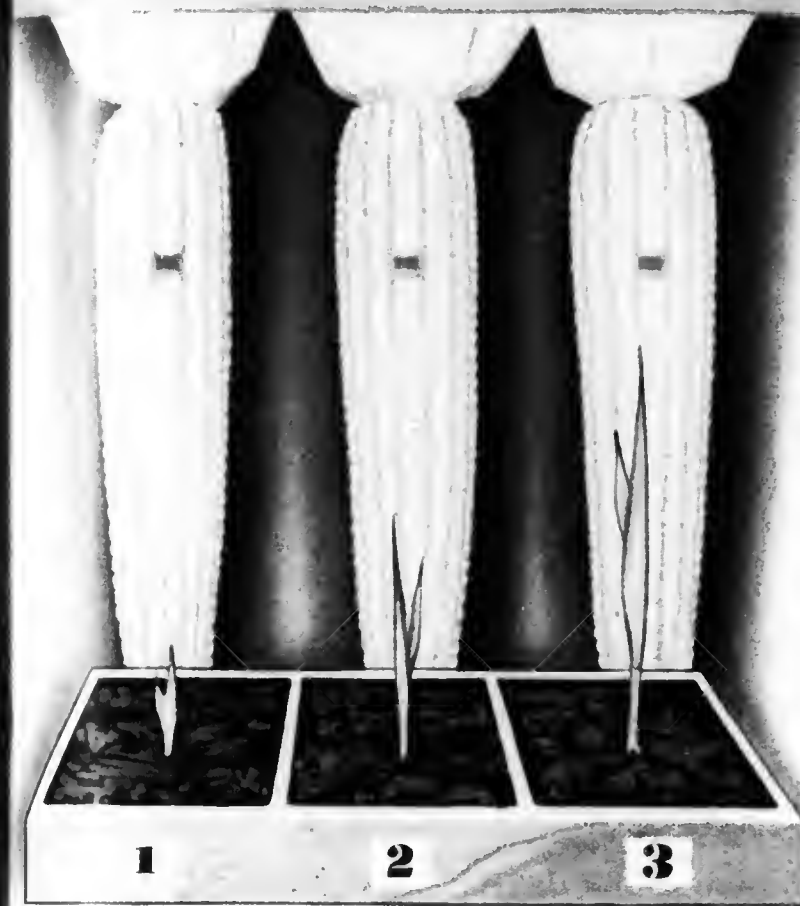
Robert I. Wagley,
Lebanon county, Pa.

A Tramp's Industry

TIMES agriculturally very good about 1890 in its modern sense had not Tramps were frequent. The off the railroad for a bite to eat and then weekly wage the case altogether. Once for came in one day they were a dead level fellows but one morning tion turned up. He ca breakfast and while wait rats he went to the barn up the tools to clean the s. Dad's stable was not a paradise. Occasionally a rat would fire a hasty foot narrow passage and conveying cover of a "dung hole." That was a spring n. probably the enclosures v. that condition. The writer a kid then, the size to st. and take notice. This tra. old cornbox reffer. I ca yet. When the man had ed out and the floor scrape shovel the tramp found a carded broom somewhere; he for surely no broom was in the barn.

With this old crippled sweep the stable clean. I do know that the old stable was ex again, but these days when my own stable with a broom I hail the tramp. In the birds of passage sing to us a day and fly on, but we remember notes—that's the way it was with the tramp, "gone but not forgot" in P.

Judge by Results Alone



Three ears—all look alike. But note the difference. Seed from ear No. 1 would produce a poor crop; No. 2 a fair crop; No. 3 a prize-winning crop. U.S. Department of Agriculture Bulletin 414 says: "Seed selected from the high yielding rows of a breeding plot produced 18 bushels more per acre than equally fine-looking seed from a general field of the same corn."

Write for U. S. Department of Agriculture information on seed corn. Address: FIRESTONE TIRE AND RUBBER COMPANY, Akron, Ohio
Los Angeles, California; or Hamilton, Ontario

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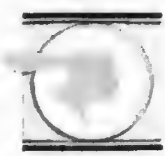
Like seed corn, tires may look alike until you know the difference. Let the Firestone Dealer show you why Firestone Gum-Dipped Tires hold all world records for Safety, Endurance and Mileage. Then, Judge By Results Alone!

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A finer car
for those who buy with care



NEW SERIES

PONTIAC BIG SIX

Illustrated above: The 4-Door Sedan, Body by Fisher

Some people are more careful than others when they spend their money. They don't buy until they see full value for every dollar. Perhaps you are like that.

If so, it is quite possible that there is a Pontiac on your farm right now. Cars bearing this famous name have always been popular with those who insist upon exceptional motor car value.

But you will find added reasons for this popularity when you see the latest Pontiac—the New Series Pontiac Big Six. This finer car is all that its predecessors were, and a great deal more besides.

Its powerful engine, yielding 60-horsepower at 3000 r.p.m., is much smoother than before. For not only does it have the Harmonic Balancer which eliminates torsional vibration, and the G-M-R cylinder head which removes spark-knock and roughness—but the engine now has a stiffer crankcase and rests upon new-type rubber supports which

completely insulate it from the frame. A new steering mechanism which acts upon roller bearings makes the New Series Six easier to handle. Its big, non-squeak, enclosed, four-wheel brakes have been made even more positive in their action. New-type Lovejoy hydraulic Shock Absorbers, at no extra cost, give added riding ease. A sloping non-glare windshield—a Fisher body feature—increases comfort and safety by deflecting the glare of approaching headlights.

And with all these finer features goes the same solid economy which Pontiac owners have always enjoyed and which releases so many dollars for the other things farm families need.

See this New Series Pontiac Big Six at the showroom of your local Oakland-Pontiac dealer. Let him take you for a trial drive in this finer car bearing a famous name. . . . Seven body types, f. o. b. Pontiac, Mich., plus delivery charges. Oakland Motor

Write for an interesting booklet which illustrates and describes the design of the New Series Pontiac Big Six with its important improvements.

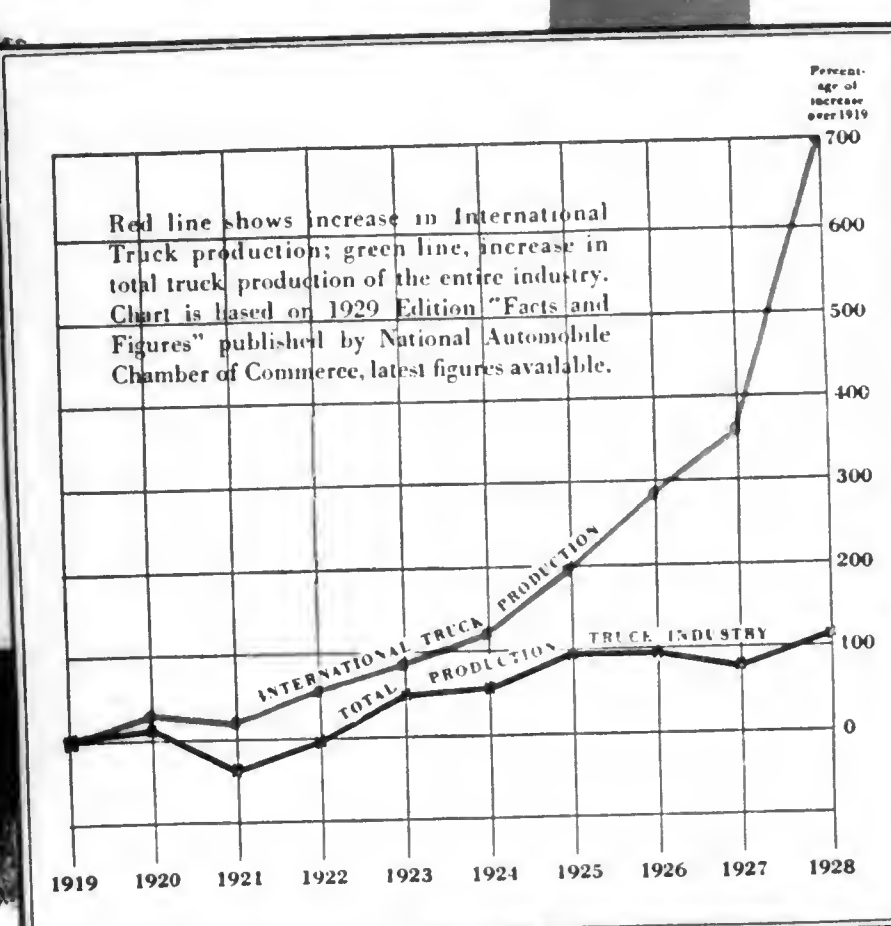
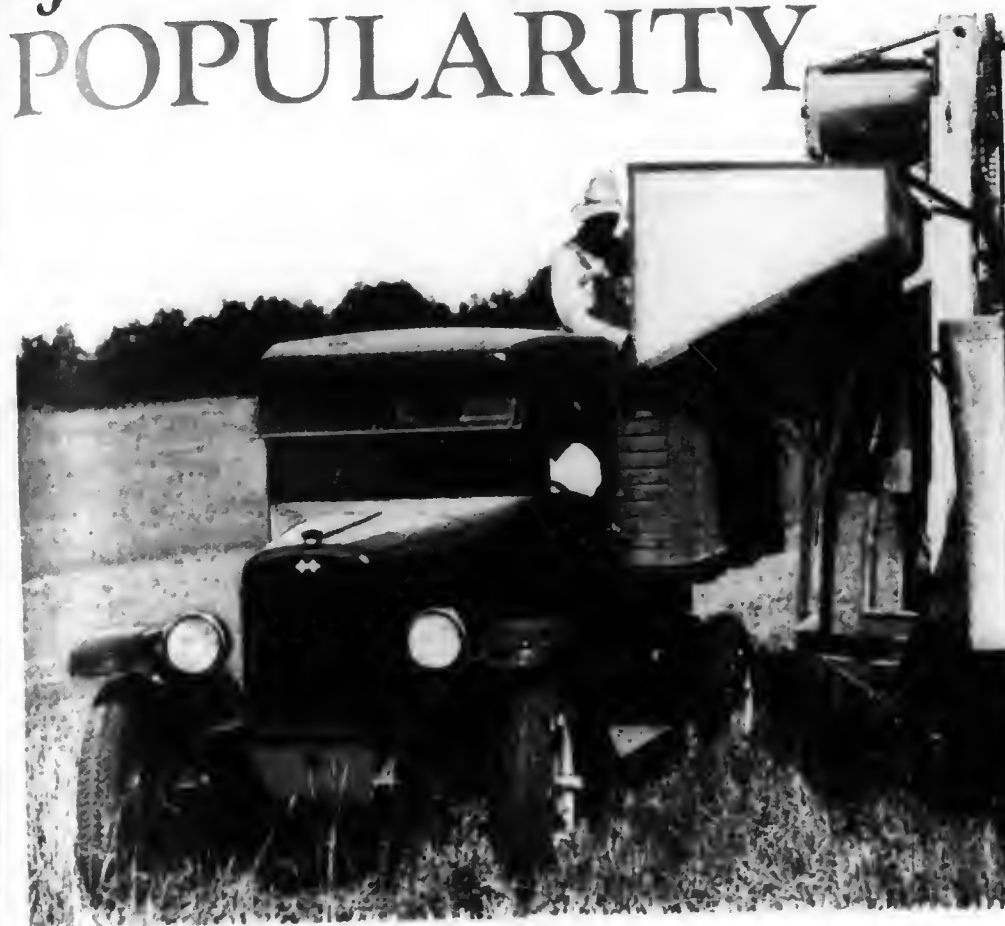
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Remember . . . you can buy a Pontiac on special G. M. A. C. terms offered to farm buyers exclusively with payments at convenient intervals during the year.

PRODUCT OF GENERAL MOTORS

AND UP, F. O. B. PONTIAC, MICH.

This CHART Shows the Wonderful Growth of INTERNATIONAL POPULARITY



BACK in 1919 International trucks were already very popular. On the farms and in the cities, many thousands of men were saving their time and money by hauling their loads in trucks made by International Harvester. In that year Internationals were already in the front rank of production.

Yet that was only a start. See what has happened since 1919. Although the manufacture of all trucks has only DOUBLED in the ten-year period, the manufacture of Internationals has multiplied SEVEN FOR ONE. The lines on the chart above show clearly how the need for low-cost hauling has brought people to the International Harvester product.

There can be no better recommendation than this, for the proof of the pudding is in the eating. The proof of complete hauling satisfaction is in the hands of the truck owner. Today you can see the proof of International success everywhere on the roads.

On such evidence, do your own hauling by International. Choose your truck from this line: the Six-Speed Special shown and described here; the Speed Trucks, 1¼, 1½, 2, and 3-ton; and the Heavy-Duty Internationals, 2½, 3½, and 5-ton. A Company-owned branch nearby, or a dealer still nearer, will deliver the International truck you choose, and see that it gives you many years of faithful, economical service.

INTERNATIONAL HARVESTER COMPANY
606 So. Michigan Ave. OF AMERICA Chicago, Illinois
(Incorporated)



International 1½-ton Speed Truck

The Six-Speed Special

The scene at the top of the page shows the popular Six-Speed Special—a truck which is fast on the hard road and powerful in deep mud. Have you seen a demonstration of this sturdy International? It is the original heavy-duty Speed Truck with six forward speeds. Through its 2-speed axle it combines high road speed with tremendous pulling power for gumbo, steep hills, and soft fields. It has sturdy members throughout, good looks, and 4-wheel brakes. The Six-Speed Special is the great favorite for rural hauling. Capacity loads always come through, so long as the wheels can reach the road bottom, when the Six-Speed Special is on the job. Catalog will be sent on request.

INTERNATIONAL

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Who ever thinks of asking,
"Did you buy your Buick new?"

Surely, your friends would never think of asking this question . . . nor does anyone ever ask any Buick owner—"Did you buy your Buick new?"

Most unconcerned of all, as to whether it's "new" or "used," is a Buick itself. It performs in the same smooth, reliable Buick way whether it has traveled fifty miles or fifty thousand *plus*.

Why wait, then, to own the Buick you have long wanted? Why deprive yourself any longer of the joys of this car—a car so good that from two to five times as many people buy Buicks as any other car of its price.

Thousands are buying used Buicks, from \$500 up, as a preferred type of transportation.

The purchase of a Buick at resale prices will bring you the same extra value and the same superior motoring satisfaction which have built this tremendous Buick popularity.

You will enjoy Buick power—Buick swiftness—Buick roadability and riding comfort—all of which is to say you will enjoy motoring qualities absolutely unmatched in any new car of comparable price.

Buy your Buick now, when prices are lowest. And buy it from a Buick Dealer. He has a thorough knowledge of Buick construction. He conditions his Buicks carefully and prices them fairly. His establishment is the place in your community to buy a used car.

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April 5, 1930

PENNSYLVANIA FARMER

(513) 23



A CORN-STALK SHAVER TO CONFOUND THE CORN BORER

Old corn stalks and other refuse must be either plowed completely under or removed from the field before the middle of May to keep the corn borer under control. If for some reason plowing is not desirable the most effective method of handling the stalks seems to be to cut them off at the ground surface, rake them up clean and burn, says the U. S. Department of Agriculture.

A stalk shaver for detaching the stalks has been developed recently, and is described in Miscellaneous Publication 69-M. The use of the shaver makes the subsequent raking operation easier. The shaver knives not only cut the stalks free but cut through the ridged rows and tend to level the soil surface, thus lightening the work of the rake. The cleanest raking can be accomplished with the least strain on the rakes if the soil has been rigid as little as possible during the cultivations of the corn.

U.S. Wiltshires on British Market

AFTER several years of experiment the U. S. Department of Agriculture has succeeded in producing, from American hogs, Wiltshire sides satisfactory to the discriminating English bacon trade. The hogs were produced on the Department's range livestock experiment station at Miles City, Mont.; were fattened by the American free-choice system of self-feeding on a ration of ground barley, tankage and mineral-mixture of alfalfa pasture; were slaughtered and cured in a packing plant at Milwaukee, Wis., and were shipped to the London market.

The British consignees accommodated the American shippers by rendering separate reports on each of the dozen bales of sides, so that the British market opinion as to appearance, size and quality of the bacon as well as the cure, might be used to complete the Department's experimental data. The official British report commented on the desirable length and leanness of this bacon and rated it "quite equal to the best brands of Canadian bacon."

F. Z. Russell, senior animal husbandman of the Department's Bureau of Animal Industry, states that hogs of the so-called American lard type proved the equal of the bacon type hog in this experiment. Four lots of hogs were included in the experiment, namely, Chester Whites, Yorkshires, a cross of Chester-White boars with Yorkshire sows, and a cross of York-hire boars with Chester-White sows. Crosses of the two breeds proved no better than the breeds themselves.

The Curtain Rises at Eight

(Continued from page 8.)

Here is a brief list of some of the plays being given:

- Sardines (Gilpatrick), 1 act, 5 females.
- Sauce for the Goslings (Warren), 1 act, 3 males, 4 females.
- Ghost Story (Tarkington), 1 act, 5 males, 5 females.
- Laziest Man in the World (Pierce), 1 act, 4 males.
- The Gift (Foley), 1 act, 2 males, 1 female, 3 children.
- Neighbors (Gale), 1 act, 2 males, 6 females.
- Uncle Jimmy (Gale), 1 act, 3 males, 5 females.
- The Bishops' Candlesticks (Mc-

- Kimmel), 1 act, 3 males, 2 females.
- Daily Bread (Reely), 1 act, 1 male, 4 females.
- The Window to the South (Reely), 1 act, 5 males, 3 females.
- Moonshine (Hopkins), 1 act, 2 males.
- Mrs. Pat and the Law (Aldis), 1 act, 3 males, 2 females.
- Getting By (Barrymore), 1 act, 2 males, 1 female.
- Soil (Portner), 1 act, 4 males, 1 female.
- Washington's First Defeat (Nirdlinger), 1 act, 1 male, 2 females.
- That Upper Forty (Herrick), 1 act, 4 males, 2 females.
- Under the Law (Wildner), 1 act, 3 males, 1 female.
- The Woodpile (Mix), 1 act, 2 males, 1 female.
- Ten Minutes by the Clock (Riley), 1 act, 6 males, 2 females.

HOGS MARKETED BY TRUCK
MORE than 60 per cent of the hog receipts at the Indianapolis market came in by trucks," says Prof. J. R. Wiley of Purdue University. He continues: "Trucking into the Indianapolis market promises to increase until it is practically a trucking market."

"Trucking has proved more economical than shipping by rail for short hauls of less than 30 or 35 miles. Around 90 to 100 miles, the rates by rail become cheaper than those by truck. When the haul is more than 100 miles, it is up to the discretion of the shipper."

Prof. Wiley has spent more than five years making a special study of livestock shipping problems.

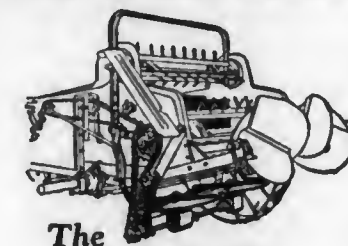
HARDWOOD ASHES

GARDENERS frequently ask if coal and wood ashes make good fertilizer for garden soils. According to the United States Department of Agriculture, wood ashes from hardwoods contain considerable potash and a little lime, and are a valuable fertilizer. Fairly dry unleached hardwood ashes may be applied at the rate of not more than 50 pounds to 1,800 square feet. Wood ashes from softwoods, and hardwood ashes that have been exposed to the weather and have had the potash leached from them, have little fertilizer value. Coal ashes have little value as fertilizer, their use being mainly to loosen the soil and make it more workable. On heavy clay soils, coal ashes tend to lighten the soil.

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the Automatic Feed Safety

IT is characteristic that NEW IDEA should invent and perfect the trouble-preventing Automatic Feed Safety, just as it has led the way in so many other spreader improvements. This new device, found only on the 1930 NEW IDEA, automatically shuts off the feed when you stop the beaters. It prevents accidental crowding of the load into the cylinders, with consequent annoyance, delays and breakage.



The Lime Spreading Attachment

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Spreaders, Two-Row Corn Pickers, Husker-Shredders, Transplanters, Corn Shellers, Portable Elevators, Hay Loaders, Hay Rakes, Gasoline Engines

BRANCHES: Harrisburg, Pa.; Madison, Wis.; Kansas City, Mo.; Syracuse, N. Y.; Jackson, Mich.; Moline, Ill.; Columbus, Ohio; Indianapolis, Ind.; Minneapolis, Minn.; Oakland, Calif.; Omaha, Neb.

Factories at COLDWATER, OHIO and SANDWICH, ILL.

PRICE \$170
F.O.B. Factory

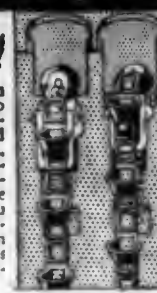


With this machine you can't jam the feed or run the load into the idle cylinders

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Here is a remarkable new invention—a one-man automatic potato planter with two endless chains—giving greater accuracy, increased yield, and reduced planting costs. No prongs to injure tubers, spread infection. Plants cut or whole seed—single or double row. Cuts in three sizes. Also fertilizes. Let us tell you how this new invention pays for itself in increased yield. Mail coupon for complete information. Address: Champion Corp., Dept. P.F. 3, Hammond, Indiana.



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Big Golden Ensilage Corn
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Heavyweight oats, av. wt. 40 lbs. @ \$1.00 a bu. Alpha Barley \$1.65 a bu. Odebrucker Barley \$1.50 a bu. Marquis Spring Wheat \$2.20 a bu.

Seed Corn, average germination above 90%.

Mammoth Yellow Flint, Early Yellow Dent, Leaning, Mammoth White Dent, White Cap Yellow Dent, Big Red Dent, Cornell 11, Sweepstakes, Lancaster County Sure Crop and Golden Glow. Several kinds as low as \$2.00 a bushel.

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Seed Potatoes, Certified and Selected from Puller-Black seed. A dozen varieties, Early, Intermediate and Late, in any quantities from barrels to our loads at prices you can afford to pay.

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No sir. A good paint brush knows its paint. And it can't stand poor paint. If you try to work off some cheap paint on it, it will get rid of it just as soon as it can and you'll be out of paint before the job is done. You can't kid a good brush—so get high quality paint and the brush will flow it out to maximum coverage for a given quantity. Your Felton-Sibley dealer will take care of your paint requirements.

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THE COPPER ALLOYED STEEL makes

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Consider these fence facts: 1. Wheeling Fence is made of full gauge wires of COP-R-LOY, the Copper Alloyed Steel—the steel with a proved record of longer life under all conditions of service. 2. Wheeling Fence is armored with a durable coating of pure zinc—an extra protection against wear and weather. 3. Wheeling Fence has the famous Hinge-Joint—the knot that gives extra strength to every wire to resist the strongest pressure. 4. Wheeling Fence is tested and stretched-up in Wheeling mills daily. You get full weight, full gauge wires. 5. Wheeling Fence costs no more than ordinary fencing. What farmer would hesitate to enjoy this Wheeling quality when he will save money in the end and get extra years of trouble-free service?

See your Wheeling Fence dealer today. He has the biggest value in Fence for you!

WHEELING CORRUGATING COMPANY

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Channel Drain Roofing
For life time roofing service, use Channel Drain Roofing. It is made of COP-R-LOY, the Copper Alloyed Steel, and is guaranteed to last for many years. It is the only roofing material that is tested and stretched-up in Wheeling mills daily. You get full weight, full gauge wires. 5. Wheeling Fence costs no more than ordinary fencing. What farmer would hesitate to enjoy this Wheeling quality when he will save money in the end and get extra years of trouble-free service?

The Story of Woodbine Farm

By W. D. ZINN

CHAPTER XI

SOMETIME in the nineties a few farmers in my community decided they wanted to organize a farmers' club. A meeting was called at the Court House on a certain Saturday afternoon. Eighteen farmers met. An organization was effected and the author was made president of the club. Similar organizations had been formed in the past, but they were of short duration.

One of the farmers present said, "Whether this organization succeeds or fails depends upon the eighteen men who are present here this afternoon. I am one who is ready to pledge my word and honor to stick by this organization." The others agreed to do likewise. For eight years that organization met regularly. Gradually this little band of farmers increased in numbers. We finally reached a point when we wanted every farmer to know what we were doing.

We felt that in order to increase our usefulness we must give greater publicity to our work. To help along with this the editor of one of our county papers, who had been a frequent visitor at our meetings, offered a column or more of his paper for our use. This would require a correspondent. By unanimous vote the author was elected editor of the agricultural department of the Barbour Democrat. Of course there could be no compensation for this labor, and I have often thought what a mistake I would have made had I said when elected to this position, "I can't do all this work without being paid for it." I now look back upon this moment as being the turning point of my life.

On Board of Agriculture

When Gov. White appointed me a member of the State Board of Agriculture, he said to me, "Mr. Zinn, I suppose you were very much surprised when you received your commission. It came about in this way. When I was editor of a paper in Parkersburg, W. Va., I frequently read your editorials in the Barbour Democrat. I did not like the politics of the paper a little bit, but I did like your editorials, and when I was elected Governor I decided that Zinn must be a member of my Board of Agriculture."

As has been stated in a previous chapter, my first work as institute speaker was in West Virginia, and I felt that it was a case of an emergency more than that I was really fitted for the work. Like Moses, I was slow of speech and really knew but little about scientific agriculture. During my work in West Virginia I had the pleasure of having Dr. H. P. Miller, of Ohio, as my co-worker. After we had spent a month or two in the state-together, Dr. Miller went to Indiana to do institute work.

About the first of October of the next year I received the following telegram from Prof. Latta, Superintendent of Institutes of Indiana: "Could you give me four weeks of your time this winter in Institute work?"

On to Indiana

If I had been asked to accept an ambassadorship to some foreign country I would not have been more greatly surprised. I did not feel that I was competent to serve in the capacity of institute instructor in the mountain state of West Virginia, and could I dare go to Indiana? I wired, "Will let you know in a few days." I could not think of any one who could have recommended me except Dr. Miller, and I thought his judgment too good for that. I wrote Miller, telling him what had happened, and asked him to tell me frankly whether it would do at all for me to go to Indiana. His reply was, "I recommended you and don't fail to go."

I think it is a proper ambition not to want to disappoint one's friends. I wrote Prof. Latta I would accept the work. Never did a young farmer start out with more misgivings as to his ability to deliver the goods. At the same time never did one have a greater determination to succeed if success was at all possible.

The first day's travel brought me to Vincennes, Indiana. Leaving there on an early train I arrived at Oak-town, Knox county, in time for breakfast. I then asked the landlord of the hotel if he knew anything about a farmers' institute to be held there that day and the next. He replied that he had not heard of any such meeting. I concluded that Indiana was not so different from West Virginia after all, for I had had that to happen in West Virginia many a time. I made up my mind that if there was to be a farmers' institute in that town somebody ought to know it, and I set out to find that somebody.

A Hoosier Institute

I had not walked a block until I saw a man coming toward me who looked like a farmer. I decided to inquire of him. "Do you know anything about a farmers' institute to be held here today?" I asked. "Yes, Your name is Zinn. My name is House. I am the president of that institute," he said.

Much to my disappointment I was told that I was to be the only speaker. The meeting convened promptly at nine o'clock. I spoke twice before noon. Fortunately Captain House was a shrewd man and a good talker. After my first talk the Captain spent a few minutes talking while I rested and got my thoughts together for the second subject. Dinner was served in the basement of the church, and during the noon hour I got my bearings better and, what was more important, got acquainted with the farmers. I was on for two numbers in the afternoon and again at night.

They seemed determined to get all out of the West Virginian that he had in him, for I had four more talks for the second day. The clock on the wall said four. I was feeling relieved when a good old farmer arose and said, "Mr. Zinn can't leave here until tomorrow at seven o'clock, and I think we ought to have another night session." A lady said, "I second the motion, and we will give him an oyster supper." Before I could remonstrate, the matter was settled. I talked only fifteen minutes that evening.

First Lady Speaker

When he was closing the last meeting of the week, Capt. House said, "Friends, I owe Mr. Zinn an apology, and since the offense was public I want the apology to be public also. When I received the Institute Bulletin and saw that a West Virginian was to be the only speaker at our institutes in the county, I was provoked, and I said to my wife, 'What can a West Virginian tell us Hoosiers about farming?' Then he proceeded to pay me a very great compliment, which if I would record here my readers would say, 'Zinn is childish.'"

I had the pleasure of traveling with a woman speaker, Miss Mathers, the last winter I worked in Indiana. She was the first lady speaker I ever heard of in an institute. Fourteen years after that I was called to Ohio to speak in Ross county, and found that my lady associate was Mrs. Romine who turned out to be the Miss Mathers with whom I had traveled in Indiana. It seemed odd to have a woman on the force in Indiana. It would seem more out of place now not to have a woman associate.

6691 1142A
April 5, 1930

Keeps Crows Away Or Your Money Back

Crows and rodents will leave you alone at planting time if you treat your seed corn with LIBERTY CROW SCAT. CROW SCAT is insurance against replanting.

For these pests are not known in fields planted with CROW SCAT treated seed.

CROW SCAT is absolutely harmless. Won't clog the planter, won't hurt the seed. On the contrary it insures maximum germination. Easy to apply.

\$1 invested in CROW SCAT means hours saved in replanting. 1/2 pint enough for 1 bushel seed \$1. 1 pint enough for 2 bushels \$1.50. You buy CROW SCAT with the distinct understanding of your money back if not satisfied. SEND NO MONEY. Just mail coupon. Pay on arrival. We pay postage.

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Send up pint (exact quantity) CROW SCAT. I'll pay postman on arrival. You are to return my money if I'm not satisfied.

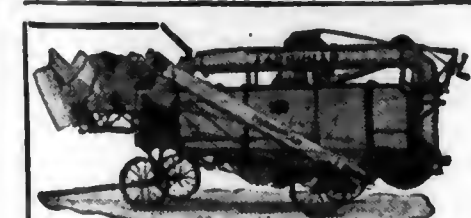
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A Thinking Job

(Continued from page 9.)

Toots' flashing look was the best answer he could have made. "Money? Yes, I reckon it will," he replied. "But this is a thinking job." He repeated the words with a caress in his voice. "A thinking job! Mr. Hakewill sir, I'll work for you. I'll work hard—if Daddy is willing for me to go—and thank you."

It was not an easy thing to do, but Toots put it up to Daddy and Nancy without any special pleading. He even steeled himself not to show any desire to accept Hakewill's offer. But he did not feel either of them, and though it hurt them to break the partnership they would not have stood in his way—they both realized that this was Toots' great chance—for any possible selfish consideration.

It was rather a sad little party in the cottage kitchen that evening, though all tried to keep up an appearance of good spirits.

"Well, I reckon you'll be passin' frequent on your snail hunts," said Daddy. "An' don't you forget that your home's here."

"Always, Toots," echoed Nancy softly.

"Daddy," said Toots somewhat later. "I've been thinking. You'll have to get some one to take my place, of course. What do you say to Mark Crumb? He's a wonder at gunning. You know why I left oystering, but Mark's really not that sort. Not like any of the rest of them. He said he'd go straight and he will. And I reckon he'd be glad of a chance to get into this business."

The idea caught Daddy. "You might Toots ran down to Mink Island in the motor-boat the next day and had no trouble in coming to terms with Mark, who was thankful at finding an unexpected avenue of escape from a business that was showing little if any profit. He could sell his beds at any moment, he said, though at some loss, which didn't matter so long as he could step directly into the place at the Bullseye. Eden was just as willing to quit, preferring to take service in one of the fleet boats to dragging along as they were.

Mark went down to the landing with Toots. "I want to tell you," he said as the latter got aboard the boat. "I paid for those shells. My conscience ain't right clean yet, but my pocket is."

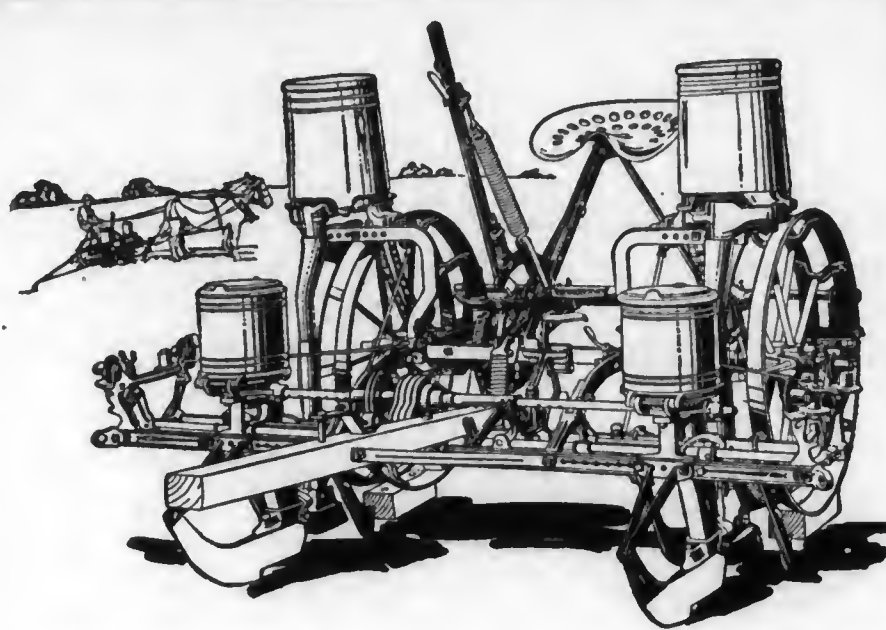
Rose was coming ashore from the Stingaree when Toots dropped anchor off the Bullseye pier. "Hear you're goin' to leave us," said the big man. "In a way, that is. I always thought it would be a good thing if you could tie up to Hakewill. I won't say I mentioned it to him, but I guess I dunno him see how you'd fit in. I helped but what I'll kind of miss you, though."

"We'll be up and down a lot, south of Mason and Dixon's line," said Toots. "It isn't like saying goodbye, Mr. Rose. Unless you and the Stingaree leave the coast."

"Maybe the Stingaree won't take many more long trips," replied Rose. "Zach and I are looking for a land anchorage. You know how it is with me. She hasn't said yes, but I've hopes, Toots. I'm a rough man, not good enough for her, but—well, I've got hopes."

There was a thread of gentle regret running through Toots' happy thoughts as he walked back to the Bullseye. But after all it was not an actual farewell he was to take of Daddy and Nancy. He could see them—all his friends in Carbury—on his collecting trips along the coast with Hakewill. He had no regrets at leaving the town itself. Even when the Colonel was alive he had never felt Carbury held anything permanent for him anything that would take the place of the education he longed for. It filled him with wonder to realize that his chance had come at last, that he was going to get an education after all, by way of what had been one of his pet desires, a thinking job.

(The End.)



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You can get these advantages by using the John Deere No. 999 Corn Planter with Safety Fertilizer Attachment.

You are assured of accurate planting with the Natural Drop Seed Plates which will drop the correct number of kernels in every hill. The drop can be instantly changed to plant 2, 3 or 4 kernels, by shifting a foot lever. The 999 can be used for drilling as well as hilling.

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The Safety Fertilizer Attachment strings out the fertilizer on both sides of the hill.

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Covering knives mix the fertilizer with the soil making it quickly available as plant food; none is wasted.

This is the first SAFETY fertilizer distributor ever used on a corn planter—one that permits the use of highly concentrated fertilizer without danger of firing the seed.



Showing John Deere safety fertilizer distributor housing. Notice the divider inside which aids in scattering the fertilizer on both sides of the seed.

Let the John Deere No. 999 Planter help you to make your land earn more. See it at your John Deere dealer's store. You can get the 999 with or without fertilizer attachment. Write for descriptive folder. Address John Deere, Moline, Ill., and ask for booklet FH-636

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THE YOUNG PEOPLE

Some Queer Pets

THE question of the queerest pet we ever heard about started in Little Folks' Corner but the letters have been so interesting I am sure you will agree they deserve more space.

Young People's Editor.

Peppy Pet

ONE wintry morning after I had done my morning chores I came upon a frozen baby bat.

I picked it up and took it into the house. I thought it was dead but towards evening it began to stir, and before we went to bed it had proved itself a lively fellow indeed.

Peppy, for so I had named him, proved to be a pleasant pet although he was a bat. During the day I looked him in a box with holes and put him up in the attic, but at night I would let him out to play. He would sit on my hand or my knee and look at me as if to say, "Don't you think me a queer fellow?"

Time went on, and one evening when I went to fetch Peppy he was not there! I was very sad for Peppy had been a delightful companion. I had about given up all hope of finding him when in a flash! But he had learned the call of the wild and would not stay. Neither did I try to keep him for I knew he belonged to the outdoors.

Peppy continued coming for about a month. Then his visits began to be less frequent until at last he came no more. But I still treasure the memory of Peppy, the queerest and best pet I have ever had. Frank Hartl, Pennsylvania.

Buddies

ONCE I had a pet turtle and a pet cat. They played together all the time. But in winter the turtle went and buried himself in the ground and stayed there until spring. They loved each other dearly. They ate out of one dish and slept in one bed. But one summer a sad thing happened. The cat got sick and died. That was the turtle's first real sorrow and his heart was broken. That fall when he buried himself in the ground he went in so deep he never came out again. Pennsylvania. Eleanor Snyder.



Ella and Jim

Left No Address

LAST summer I had two pet woodchucks. They would lie in my lap and sleep when the sun was warm. When they were hungry they would open the screen door and come to the bread box and beg for bread. Their names were Ella and Jim. Early in the fall Ella left and has never returned. On November 15 Jim came in and ate a big meal, holed up under the kitchen and has never been seen since. Geneva Snodgrass, West Virginia.

AND NOW—!

THERE'S a great day coming soon—better than Christmas or Thanksgiving to some—the last day of school. Write and tell us how you feel about it. Are you glad or sorry?

Prizes for the new April contests will be worth working for. Ten prizes will be given to the boys or girls who submit the best paper on the following subjects:

1. Why I want to go to school.
2. Why I don't want to go to school.
3. Subject for cartoon: "The Last Day of School."

All letters must be written with ink. Give your name, address and age. Use white, unruled paper and blue or black ink for the cartoons. Contests close April 15th.

Send all letters to Young People's Editor, Pennsylvania Farmer, 7301 Penn Ave., Pittsburgh, Pa.

This One Files

MY strangest pet was a flicker or yellow hammer. My father was walking in a field after a rain storm and heard a queer sound. He looked and saw a half-grown bird on the ground that had been shaken out of its nest. Father picked it up and took it home and we fed it on bread and milk and made it a nest out of a hollow limb of a tree.

As it grew older it would hop around on the floor and when my mother left the door open it would stand there and chase the chickens away from the door. It would fly on our heads and talk in bird language. It made friends with a little chick. Its favorite food was ants. It goes south every winter and returns in the spring with its mate. It still knows us and allows us to touch it. New York. Henry Stabb.

Still Remembered

I GOT my pet on a warm, stormy day. He was a baby raccoon, with nice gray eyes and soft fur. He would eat corn out of my hands. One day a dog came and killed him. We all felt like killing that dog but didn't have the nerve because it belonged to a game warden. We felt very sorry about our only pet and had a nice funeral for him in the garden as our cemetery.

He has a marker over his grave; a tombstone with this writing: "Rags Raccoon, aged nine months, five days. Only pet of Walton G. Metz. Gone but not forgotten." Pennsylvania. Walton G. Metz.

What Do You Think of This?

THE queerest pet that I ever had was a large blacksnake. My home was near a wood and this snake made its home in the cellar. Its door was a knot-hole where it went in and out.

I often heard that snakes liked milk so one day I thought I would experiment on it. I got a bowl ready with milk and set it out to see the result. I waited a few minutes, then out it came. It just took a few sips and crawled back in its hole. I did that now and then until the snake and I became friends.

But it got too bold and crawled around to the yard. Mother was afraid it would bite my little baby sister and told papa to shoot it. Pennsylvania. Kathryn Black.



This guinea pig is the pet of Lillie Shroyer, Pennsylvania.

Raccoon Rampages

MY queerest pet was a little raccoon. His earlier life was spent with his mother but he was caught by a hunter. The hunter thought he was dead but going home that night Coonie came to life. His first bed was one of Mother's silk dresses. Any one knows they don't grow on bushes, but Coonie seemed to think so.

My friends and I used to catch crabs and put them in the washtub for him to fish out. Often they would catch his tail and toes but Old Man Crab would have to let go because Coonie would behead him. After he was filled, he would run around the tub until a path was worn. I called this path his war-path.

In one way Coonie was like a kid. He once tore the top crust off one of Mother's rhubarb pies. He ate the rhubarb out of the pie. Sugar wasn't safe on the table if Coonie was around. He would hop on the table, lick his paws to make them wet, then go for the sugar until Mother caught him. Claude Wernitz.

(Will Claude please send an address?)

Woodchuck Likes Pie

I HAVE a pet woodchuck named Johnny. Daddy caught him when he was about three days old and we raised him on a bottle. He eats dan-



Johnny Woodchuck Likes Cherry Pie

dellons, cocoanut, cakes, candy, nuts, pie and drinks chocolate milk. He slept in the cellar this winter and came out for the first time on February 9th.

He romps around and plays funnier than a kitten or puppy. He turns one somersault after another. Edith H. Mellinger, Pennsylvania.

Sociable Bug

ONE day as I was on my way home from school, I saw a large bug walking across the pavement in front of me. I paused to look at it and it was a praying mantis, so I picked it up and took it home with me and made a pet of it.

It would eat sugar from my finger and would crawl upon my shoulder and sit there while I walked around the garden. When I went out riding I would take my pet along and it would sit on my hand or on my shoulder. It would keep pawing for me to talk to it. I haven't got it now as it died at Christmas time. Pennsylvania. Dorothy Gounder.

Editor's note:—In case you don't know, the praying mantis is a bug remarkable for its grotesque form and for holding its stout anterior legs in a manner suggesting hands folded in prayer. It preys upon other insects and is perfectly harmless.

Sniff This

Here is a tongue twister I would like for the readers of the Young People's Page to try:

"How many sniffs of sifted snuff would a snuff sniffer sniff if a sifted snuff sniffer snuffed sifted snuff?"

Martha Iris Rebecca Pope, West Virginia.

Sal-yen-ga!—Send your story to Young People's Editor, Pennsylvania Farmer, 7301 Penn Ave., Pittsburgh, Pa.



Althea Schaffer of Pennsylvania and her pet rabbit "Pete."

"Jimmie, the Skunk"

ONE real early, cool morning, the sun not yet risen, was showing glints of gold above the horizon, when I started for the cows to round them up for the morning milking.

Brownie, our dog, was sniffing along merrily wagging his tail when all of a sudden he stopped and began barking furiously at some little black object. He then began pawing frantically at his nose and eyes and wiping his nose in the grass with signs of utmost distress.

With a few quick bounds I was at his side, but the odor radiating from him soon told me the black object was a skunk. He appeared quiet and undisturbed and having handled the little animals before, I quietly placed one hand over his beautiful plummy black and white tail while with the same movement placed the other around him and cuddled him firmly under one arm.

He was only a little mite but soon learned we intended him no harm and with no sudden, startling movements we could hold him just as a kitten. Jimmie, as we called him, would sit in my arms and lap milk from a saucer. Between every few laps he would stretch out the toe nails of first one front foot, then the other, rake through the milk and then with utmost care lick each nail perfectly clean. He would then resume his lapping the milk. He loved to take a cold potato from us and would always run to a dark corner behind the door to eat it. Betty Bean, Pennsylvania.



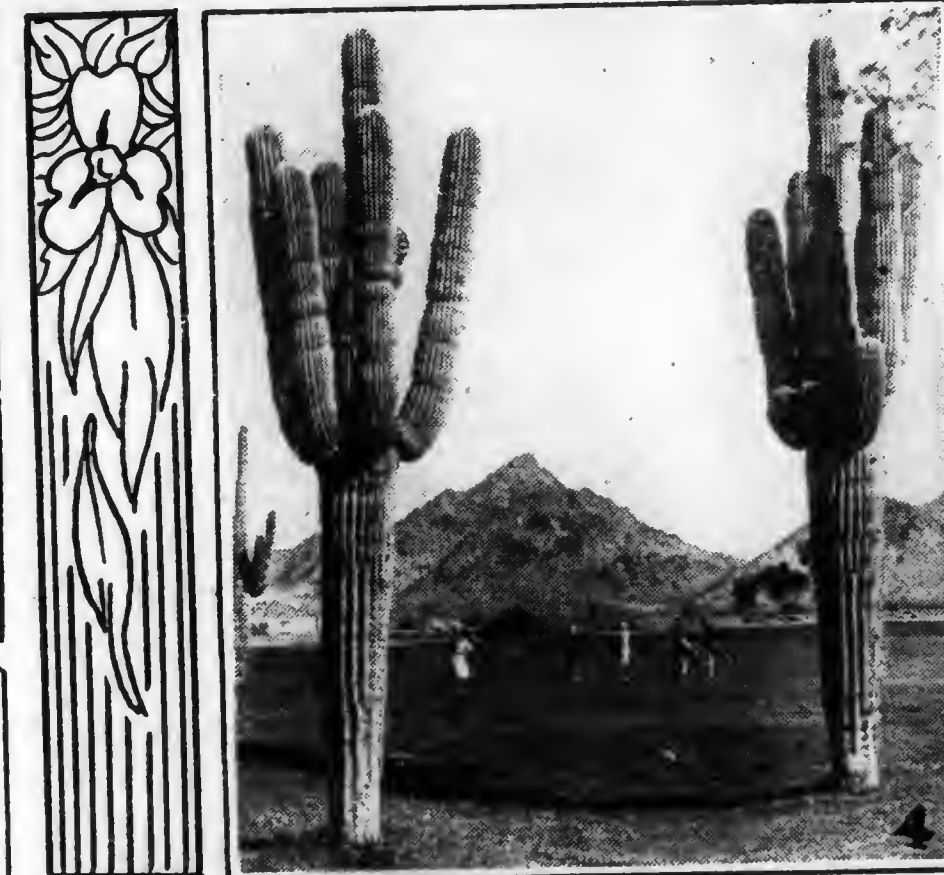
Shorty



Bobby

Sarah Detweiler thinks Bobby and Shorty are great pets.

PASSING EVENTS IN PICTURES



(Copyright by Underwood & Underwood)

1. Cottenham, Eng.—Photo shows a good action picture of Mr. Scratchley bolting over the head of "Prince Allen," and grinning while heading for earth, in the Cambridge University Point-to-Point races.

2. Shanghai, China.—The famous two-wheeled taxis of China, with a combination driver and engine—a ricksha on Szechuen Road bridge over Soochow Creek. The leisered sailor is John Henry Blaising, Jr., of Coleridge, Nebr.

3. Los Angeles, Calif.—The giant new motor-hus, a double-decker of the Pickwick Motor Coach works, which carries 53 passengers and is capable of 70 miles an hour. For continuous

point-to-point speed the bus can undergo a complete substitution of its power plant in but 15 minutes,—a new note in motorcoach travel. Railroads change the locomotives of their cross-country trains—the new bus simply changes motors.

4. Phoenix, Arizona.—Photo shows the rugged slopes of Squaw Peak in the background and many-fingered Saguaro cacti in the foreground lending a spectacular note to the golf course of the Arizona Biltmore Hotel.

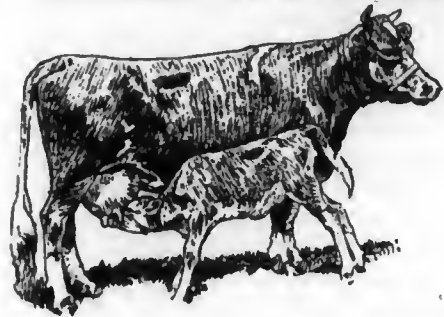
5. Omaha, Nebr.—Charlotte E. Worley, professor, lawyer and now a successful woman farmer is going to try and break her own record this year. She is going to try and pass the

\$125,000 mark which she took in this year from her farm products derived from her efforts at farming 3,200 acres of land in western Nebraska. She raises corn, oats, potatoes, wheat, alfalfa, some stock, and this year will introduce flax in the western part of the state.

6. Noted sculptor completes bust of Supreme Court Judge Edgardo Simone, internationally famous Italian sculptor, photographed with the bust of Associate Justice Harlan Fiske Stone of the United States Supreme Court which is nearing completion at his studio in Washington. Justice Stone is seen on the left, posing for Mr. Simone to make the final touches on the model.

Calving

-when a cow
needs a friend



HOW often have you lost wholly or partially the productive services of a good cow because of some disorder or disaster at freshening? What a hole it makes in your milk profits! And it might have been avoided. The system of even a healthy cow cannot meet the calving ordeal without a severe shock. After a winter of barn-feeding, when resistance is certain to be at low ebb, definite conditioning is indicated. It is the one sensible, money-saving course.

KOW-KARE will lift from your shoulders many of your worries. It should be added to the feed of every cow, two or three weeks before and after freshening. This concentrated formula of Iron, the great builder and blood purifier, plus potent medicinal herbs and roots, acts directly on the digestive and regenerative organs—helps put the cow in the physical vigor to perform her functions normally and without accident. KOW-KARE is used in leading dairies throughout the Country as a regular preparation for calving. Full directions are on the package.

As a general conditioner, to prevent diseases, and to aid the cow to convert her food into full milk yield, KOW-KARE enjoys a wide reputation. At a cost of a

few cents a day per cow, appetite and digestion are improved, assimilation speeded up, vigor to resist or recover from disorders are visibly promoted.

KOW-KARE is sold by drug, feed, hardware and general stores, \$1.25 and 65¢ sizes.

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Dairy Association Co., Inc.
Dept. 25, Lyndonville, Vermont

KOW-KARE

THE CONCENTRATED COW CONDITIONER

NEIGHBOR DAVE SAYS—

"Ever try to recollect the names of the Vice Presidents? Bill says he can't see what they need 'em for, unless they're like a spare tire—just t' have along in case something happens. It's a good thing t' be ready for emergencies. Makes you feel safe. When you fence your place with leaded, you know you won't have it t' do again for good many years. Leaded lasts so much longer than ordinary fence because it's got seven times as much coating, an' that coating is lead. The life of a fence is in the coating. Read in the new catalog how Leaded is made. Be tickled t' send you one. Just drop me a card—Address NEIGHBOR DAVE, at the Leaded Wire Co., Roundsville, W. Va. PS.—Do it tonight."



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Lime Rock and the Human Race

By L. W. LIGHTY

IT was not a vain boast of Kentucky that her bluegrass region produced the handsomest women, the fastest horses and the finest cattle in the country. Lime rock was the basis of this superiority.

Who will say that the lime rock in Palestine is not one of the basic factors of the ineradicable race characteristics of the Jews?

Have you read Grote's History of Greece and particularly Creasy's story of the battle of Marathon? In the little valley of Marathon we have the picture of what a handful of men nurtured on time rock food and lime rock water can do to a horde of men from anywhere that happens. Those 11,000 Athenians with lime-nourished bodies and brains pitted against ten times as many Asiatics on a September afternoon decided the fate of the European and the American continents for the future.

In the hand-to-hand conflict the limestone valley folks (Athenians) lost 192 out of their 11,000, while the Asiatics were literally driven into the sea, left 6,400 dead and had seven of their ships burned. Not only was one Athenian able to chase ten, but he could throw down his spear, take up the chisel and fabricate out of lime rock art creations such as the world never saw.

Aside from historical lore I have personally explored a few hundred thousand square miles. Even though the soil was covered with a heavy layer of snow and ice the effects of the limestone rocks were to be seen plainly in the buildings and the countenances of the men, women and children, in the school houses and the general progressive social manifestations.

What Lime Rock May Do for Us Now

Doubtless we still have a lot to learn, but we know that the man who brings some lime to his farm periodically has annual crops of red clover. All clovers are soil builders, but the red clover is the foremost because it thrives almost everywhere and adjusts itself to our several rotations of crops. It is unsurpassed as winter feed and the roots are of such a nature that they put the soil in a fine mechanical condition. It takes great quantities of nitrogen from the air, making the soil more fertile by its growth.

As I write this on the 20th of March I look against a hillside almost a mile away that is a solid mat of green wheat. For a quarter of a century that hillside was becoming more and more barren and more eroded and was practically abandoned as worthless. A new owner gave it a coat of lime five years ago and at once had a fine stand and growth of red clover. Next he had a fair crop of corn. As he seeded it to wheat last fall he gave it another dressing of lime, so now that hillside is a pleasure to look at and surely better for the owner than a barren field full of gullies.

Millions of acres are lime-hungry and will respond generously when lime fed. Some states are just becoming lime wise. Missouri used less than 10,000 tons ten years ago, but last year 236,000 tons was applied to the soil. To use lime understandingly on our farms is invariably a profitable investment and many such investments should be made now.

Silently the Camera Tells the Truth

In my travels nearly always I carried a camera and took pictures of farm homes, because they were attractive and desirable or because they were unusually dilapidated and neglected. Always the owner was entitled to a copy of the picture and got it. I was surprised on a number of occasions how many improvements were made by a second visit when I

was invited to take another picture. The owners never saw the amount of junk and rubbish the place harbored until they looked at the photo.

I know farmers who have kept a record of the improvements they made on the place with a camera. It surely is more impressive than a written record. The old house, the old fences, the old wood and lumber piles have been replaced by a new house and ornamental fences or none at all, and the surroundings are planted to ornamentals. The unsightly wood and lumber piles are hidden by vines and climbing roses. The evolution of the "beloved" old homestead has been most complete and desirable.

Why Test Cows?

I see an article in today's issue about our milk laws. A. A. Borland states that pasteurizing kills all germs. Then why test cows?

I have talked with numerous farmers. They tell you the reason they tested was to have a market for their milk.

Why let men sit in swivel chairs and make such laws? Cannot the government stop it? It is a one-sided affair with the producer and consumer on the same side. We all have to help make up the state appropriations.

I understand New York state had the same rules but saw their mistake and abolished it. I believe in stable inspection and sanitation, but why test when we have to pasteurize?

A Subscriber.

THE new state law does not require cows to be tuberculin tested when their milk is to be sold as pasteurized milk. Tuberculin testing is required only when the milk is to be sold as certified milk or raw milk.

Thousands of people in the state use raw milk instead of pasteurized milk. I think no one would assert that raw milk consumers should not be protected from the possibility of an infected milk supply.

It is true that the tuberculin test is not 100 per cent perfect, but does any one know of any better test, or in fact of any human device that can be guaranteed 100 per cent perfect? The tuberculin test according to data that has been acquired from various states appears to run from 98 to 100 per cent in accuracy, and that is as nearly perfect as it is possible to get in this old world.

Healthful Milk Supply

New York state in the past has not been as particular about the tuberculin tests as has been Pennsylvania. Some Pennsylvania dairymen have bought dairy cows from sections of New York state with most unsatisfactory results. In fact, some of our dairymen refuse to purchase cattle from some sections of New York state on account of the tuberculosis hazard. You will agree with me that this is no credit to the state of New York and that Pennsylvania should not put herself in the position to be similarly classified.

Pennsylvania is now in an enviable position from the standpoint of tuberculosis eradication. If I am correctly informed there are thirty-six counties in Pennsylvania which are area tested, that is, 99 1/4 per cent or more of the animals in the county are free from tuberculosis. Eight more counties are ready for certification as area tested. This state of affairs is certainly conducive to a more healthful milk supply. The city of Philadelphia has passed an ordinance that after a certain date no milk will be allowed to come into that city unless from the tuberculin tested cows. Other cities are acting similarly, hence it is only a question of time until a man who has untested cows will find it difficult to market his milk.

While it is true that pasteurization kills disease germs, yet who wants to eat disease germs even though they are cooked? A. A. Borland.

A Year of C. T. A. Work

THE cow-testing association work in Pennsylvania continued to make material progress during the calendar year 1929. There were 32,484 cows on test during all or part of the year, a gain of 5,046 over the previous year.

Seventy-seven associations completed a full year's work. There was an average of 23,597.97 cows on the entire year basis. The average production per cow was 7,751 pounds of milk and 300.5 pounds of butterfat. There was an increase of ten associations over the previous year.

This is the third year in the history of Pennsylvania cow-testing associations that the average for all associations in the state was more than 300 pounds of butterfat.

| Name of Association | No. of Cows | Ave. Lbs. Milk | Ave. Lbs. Fat |
|---------------------------|-------------|----------------|---------------|
| Venango | 243.01 | 9561 | 339.0 |
| Duffalo Valley, Union Co. | 292.67 | 9527 | 318.8 |
| Carbon | 92.68 | 10078 | 342.7 |
| Cumberland No. 1 | 422.63 | 9307 | 339.8 |
| White Deer Valley | 326.70 | 9612 | 333.8 |
| Lycoming Co. | 249.29 | 8451 | 332.7 |
| Canton, Bradford Co. | 300.25 | 7895 | 332.2 |
| Bucks No. 2 | 261.04 | 8214 | 331.8 |
| Cumberland No. 2 | 248.91 | 9328 | 323.0 |
| Washington | 285.47 | 8037 | 321.0 |
| Centre Co. No. 1 | 355.32 | 9012 | 320.7 |
| Bucks No. 1 | 363.18 | 8144 | 320.4 |
| Wayne | 497.77 | 6758 | 320.3 |
| Northern York | 312.36 | 7896 | 318.2 |
| Garden Spot, Lanc. Co. | 129.40 | 9492 | 318.1 |
| Central Pa. Gy. Brds. | 438.73 | 7144 | 318.1 |
| Mifflin | 227.90 | 8725 | 317.5 |
| Schuylkill | 342.79 | 8151 | 317.1 |
| Grove City, Mercer Co. | 264.95 | 6311 | 316.0 |
| Allegheny | 319.14 | 8258 | 315.7 |
| Jackson, Tioga Co. | 404.67 | 7655 | 314.2 |
| Montgomery No. 1 | 431.01 | 7981 | 313.6 |
| Southern York | 259.10 | 8541 | 312.0 |
| Lebanon | 369.56 | 8335 | 311.3 |
| Chester Valley, Ches. Co. | 456.07 | 6606 | 311.1 |
| Titusville, Crawford Co. | 252.93 | 7783 | 311.0 |
| Laurel Hill, Brad. Co. | 359.53 | 7729 | 311.0 |
| Indiana No. 1 | 289.01 | 7476 | 310.7 |
| Indiana No. 2 | 162.79 | 7066 | 309.9 |
| Junata | 294.08 | 8963 | 308.9 |
| Second Jefferson | 203.60 | 6798 | 308.7 |
| W. Chester, Ches. Co. | 336.31 | 7638 | 308.4 |
| Sullivan | 203.41 | 8570 | 306.3 |
| Oxford, Chester Co. | 384.61 | 6763 | 305.1 |
| W. Susquehanna No. 2 | 325.74 | 8544 | 303.5 |
| Carlisle | 257.17 | 7272 | 302.2 |
| Westfield, Lawr. Co. | 319.86 | 6890 | 301.8 |
| Centre Co. No. 2 | 187.89 | 7618 | 300.6 |
| Mehopany, Wyom. Co. | 190.73 | 8163 | 300.0 |
| Adams | 222.67 | 8193 | 299.2 |
| Gettysburg, Adams Co. | 359.74 | 8212 | 288.1 |
| Warren | 483.15 | 7973 | 287.5 |
| Westmoreland No. 2 | 327.93 | 7929 | 287.5 |
| Huntingdon | 415.51 | 7578 | 286.1 |
| Cowenry, Chester Co. | 495.58 | 7322 | 281.3 |
| Payette | 387.01 | 7080 | 284.6 |
| First Jefferson | 268.43 | 7262 | 283.1 |
| Lehigh Valley, Berks Co. | 245.29 | 7811 | 282.8 |
| Crawford-Venango | 136.90 | 6833 | 289.6 |
| Damascus, Wayne | 451.31 | 8050 | 280.1 |
| Shenandoah No. 3 | 311.79 | 6978 | 283.9 |
| Montgomery No. 2 | 353.71 | 6931 | 283.3 |
| W. Williams, Berks Co. | 298.21 | 8516 | 287.2 |
| Wellsville, Tioga Co. | 373.60 | 5117 | 287.1 |
| Merger No. 4 | 257.41 | 6854 | 287.0 |
| Brothers Valley | 275.26 | 7328 | 288.1 |
| Somerset Co. | 301.27 | 7069 | 281.4 |
| Northern Berks | 425.60 | 8091 | 283.9 |
| Clevidale | 221.08 | 6111 | 283.6 |
| South Franklin | 311.15 | 7170 | 283.3 |
| Upper Bradford Co. | 303.63 | 7311 | 282.5 |
| Ulysses, Potter Co. | 353.61 | 7638 | 282.2 |
| Western Crawford | 336.06 | 7692 | 280.8 |
| W. Susquehanna No. 1 | 361.10 | 7283 | 279.9 |
| Lehigh | 259.47 | 8110 | 279.3 |
| Dauphin | 315.01 | 7837 | 275.9 |
| Western Franklin | 210.66 | 6725 | 275.0 |
| Troy, Bradford Co. | 191.59 | 6594 | 274.8 |
| Snider | 301.69 | 7686 | 273.6 |
| Wattsburg, Erie Co. | 401.80 | 7563 | 273.7 |
| Blair | 301.36 | 6925 | 273.4 |
| Westmoreland No. 1 | 366.69 | 7363 | 272.3 |
| Cowenry Valley | 205.54 | 7587 | 268.9 |
| Lackawanna | 321.10 | 7750 | 267.5 |
| Sparks-Sageertown | 271.54 | 7576 | 267.2 |
| Crawford Co. | 417.62 | 6731 | 266.1 |
| Waterford, Erie Co. | 196.87 | 7489 | 261.5 |

| Year | Ass'n's Above 300 Lbs. Fat | Ass'n's Above 8,000 Lbs. Milk |
|------|----------------------------|-------------------------------|
| 1929 | 1 | 1 |
| 1928 | 1 | 3 |
| 1927 | 5 | 3 |
| 1926 | 3 | 5 |
| 1925 | 3 | 9 |
| 1924 | 15 | 11 |
| 1923 | 32 | 19 |
| 1922 | 38 | 25 |
| 1921 | 39 | 28 |

Three hundred pounds butterfat average per cow is a goal sought both in associations and in individual herds. The following table shows the increase year by year in number of associations averaging 300 pounds or more of butterfat per cow, also those exceeding 8,000 pounds of milk.

| Year | Ass'n's Above 300 Lbs. Fat | Ass'n's Above 8,000 Lbs. Milk |
|------|----------------------------|-------------------------------|
| 1929 | 1 | 1 |
| 1928 | 1 | 3 |
| 1927 | 5 | 3 |
| 1926 | 3 | 5 |
| 1925 | 3 | 9 |
| 1924 | 15 | 11 |
| 1923 | 32 | 19 |
| 1922 | 38 | 25 |
| 1921 | 39 | 28 |

Ben Middleton

scores another smashing victory



(Below) Katherine, who returned \$2,277.43 profit over feed cost in seven years

10,472 lbs. milk—400.9 lbs. butterfat average yearly production for 7 years with 27-cow herd

Records of the Fairfax County, Virginia, Herd Improvement Association show that during the last seven years Ben Middleton's herd which averaged 27 cows has an average yearly production per cow of 10,472

lbs. of milk and 400.9 lbs. of butterfat. . . One cow, Katherine, in seven lactations has produced 110,230 lbs. of milk and 3,956.4 lbs. of butterfat and returned in these seven years \$2,277.43 profit over feed cost. She is in perfect health and a regular breeder.

Skillful Feeder

To have 27 cows average 10,000 lbs. of milk and 400 lbs. of butterfat in one year is an accomplishment—to attain that impressive yearly average for seven consecutive years is a triumph in herd management. The Middleton herd is well bred, but breeding alone will not bring such consistent

results. It required real skill in feeding and handling the herd. During the fall, winter and spring Mr. Middleton feeds Larro Dairy Ration at the rate of 1 lb. to each 3 1/2 lbs. of milk produced. He

We asked Mr. Middleton if we might tell other dairymen about his success. His answer was: "I am always glad to pass on to other dairymen any of my experiences that may be helpful to them. Furthermore, it would be unfair of me not to say that Larro Dairy Ration has been a big factor in my success. It keeps my cows in good condition, keeps the milk flow up and as for profit over feed cost it is the best."

feeds Larro in the summer when his cows are on pasture, too—the amount being varied according to the quality and quantity of pasture and the individual needs of each cow.

Feeds Larro Year Round
Ben Middleton knows the value of Larro. His records show it. He knows, too, that pasture alone during the summer months is not enough. That's why he feeds Larro the year round.

If you are already feeding Larro you know its value—if you are not feeding Larro it will pay you to get acquainted with it at once. See your Larro Dealer or write for complete information about Larro.

THE LARROE MILLING CO.
DETROIT, MICHIGAN

Larro

FEEDS THAT DO NOT VARY
FOR POULTRY · HOGS · DAIRY

Ask your Larro Dealer for Larro Family Flour



The Cow with a Window in Her Stomach

By R. PRESLEY STEVENSON

AN operation putting a "window" in the stomach of Penstate Jessie II has just been pronounced successful by Dr. James F. Shigley, of the Pennsylvania State College veterinary department. Penstate Jessie II replaces the original Jessie whose death February 14 terminated a life that had gained her more fame than Mrs. O'Leary's cow burning Chicago in 1871.

The operation was performed by Dr. Shigley and Dr. S. I. Bechdel, of the Penn State dairy husbandry department, in order that experiments being conducted at the death of the first Jessie could be resumed. Research workers hope to solve many more problems through the aid of the new "cow with a window in her stomach."

Manufactured Vitamin B

The first Jessie contributed a great deal to science, so much in fact that if any mere animal were to be given a monument for service to mankind her name would be written near the top of the candidate list. Dr. Shigley, whose work was to see that Jessie remained in the best of health and continued to chew her cud contentedly, took great pleasure in showing her to State College visitors, many thousands of whom viewed her during her lifetime.

The part Jessie played in scientific research is outlined in Dr. Shigley's words: "Because of Jessie, a new bacterium was discovered. Through her, it was ascertained that every animal with the cud chewing habit has the ability to make vitamin B in its own personal stomach. Through her, much was contributed to the world's knowledge of vitamin B, which is very important to growth, for without it the body develops slowly, if at all. Most animals receive it from the outside by means of the food they eat, but Jessie proved that cows can manufacture all that is necessary in their own digestive systems."

Method of Test

Jessie I was born in 1923. She was a pure-bred Holstein and was registered as Penstate Homestead Jessie, No. 924062. From birth, her destiny decreed that her entire life should be devoted to experimental purposes. Until she was operated on at three years of age, she was one of a herd of seventeen calves that were being used to determine the effect of vitamin B on growth. Dr. Bechdel had charge of this experiment.

The entire herd was fed a mixture

from which the vitamin B element had been deleted. Despite this, however, Jessie, along with her sixteen companion calves, grew to maturity without blemish.

This led the experimenters to believe that cows have the ability to meet their own vitamin B requirements. This belief was further accentuated by the fact that when the vitamin B growth factor was removed from the rations of the experimental white rats in the college laboratory, the rats were greatly underdeveloped.

With this theory in mind, the experimenters decided that Jessie must have an operation. That was why a little later she had a "window" in her stomach, and her fame was spreading every day.

The new bacterium was discovered by Prof. M. T. Knutsen, of the Pennsylvania State College bacteriology department, and was named by him Flavobacterium vitrum. The pure culture of this organism, found in Jessie's stomach, was shown to be highly potent in vitamin B, which tended to prove that a cow has the ability to manufacture her own vitamin B, since the latter had never been included in Jessie's rations.

That vitamin B in milk is not dependent on the presence of this vitamin in the feed of the cow was also proved. This evidence tends to show that all cud chewing animals can make the vitamin in their first stomach by means of the bacteria that Professor Knutsen isolated.

False Economy

TO dairymen now inclined to slight their herds because new grass will soon be available, Prof. J. W. Bartlett, dairy husbandman for the New Jersey Agricultural Experiment Station, says, "Don't." Economy measures that reduce either the quality or quantity of the ration, Professor Bartlett points out, will result in reduced milk flow, a falling off in flesh of the cows, and retarded growth in the young stock.

"The well-fed cow that maintains her production until turning-out time will give an increased milk flow at a very low cost," states the dairy authority. "Therefore, it is better to order a carload of good mixed feed or legume hay to tide over until new grass is available than it is to use a poor grade of roughage because it can be bought cheaply. Quality should be the buyer's first consideration."

"If the silo is empty, it may be a good investment to feed each of the higher-producing cows three pounds of beet pulp daily."

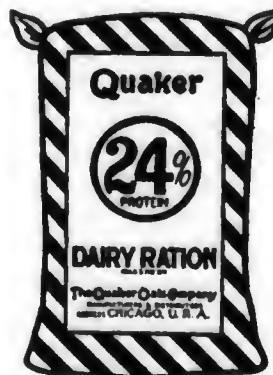


Herd Owned by The E. D. Cooper Estate
Java Village, New York

You Can't Be Certain About Pastures—

BUT you can always be sure of satisfactory results from Quaker Dairy Feeds.

Don't take a chance on losing your profits and jeopardizing the condition of your herd by counting on an early pasturage which may be delayed by a late Spring. It is important at this time of year to continue to give your cows Quaker 24% Dairy Ration, the reliable milk-and-profit producing feed. The most successful dairymen rely on Quaker 24% Dairy Ration the year round. Ask your Quaker Dealer.



THE QUAKER OATS COMPANY, CHICAGO, U. S. A.

Quaker Sugared Schumacher—is the complete carbohydrate feed; combines perfectly with any Quaker high protein concentrate (24%, 20% or 16%). A choice feed for all young or dry stock; an entire grain ration for horses, steers, lambs and swine



Jessie, showing Dr. Shigley removing a sample of partly digested food through the "window." Dr. Bechdel is holding the rope.

BUY QUAKER FEEDS IN STRIPED SACKS

Apples for Hogs

EDITOR, Pennsylvania Farmer: Your correspondent H. D. in your issue of March 15th writes very entertainingly of appetizers for hogs, and seems to know his Bermudas perfectly until he reaches the point where he declares that "Apples have no feeding value to speak of." From this we very strongly dissent, and to us it sounds like swivel-chair stuff.

After more than half a century of observation and experience we credit apples with a value for feeding hogs that is well worth considering, and that if rightly fed in proper combinations three bushels of apples are equal to one of corn for pork.

Some years before the World War, I had a neighbor farmer with whom I was intimately acquainted. Before we commenced farming we were school mates; later, during the more serious years of life, we consulted together; and there were never any "trade secrets" between us. He was a better business man than myself, and, in addition, was one of the most industrious individuals with whom I ever came in contact. He never side-stepped anything in the way of work; and had infinite patience for working out details. After finishing any unusual enterprise, he always had there-for reliable data to guide him should a similar occasion arise.

Something "to Speak of"

It was when both meat products and labor were much lower in price than at present. Smith had a large quantity of what he called "hog apples"—consisting of "drops" and otherwise unsalable fruit, and he thought out a scheme for turning them into cash. He bought a bunch of shoats, weighing around 100 pounds each. They were put up in pens, the apples picked up and measured and fed at regular intervals what the pigs would clean up quickly, care being taken not to overfeed. They grew rapidly, and when the apples were consumed they were "hardened up" on a few hundred pounds of meal, and then dressed for the market.

When the transaction was completed and the shoats and meal paid for, he had left to show for his apples 37 cents per bushel. At that time, picked apples—winter fruit—were selling at 35 cents on the Scranton market thirty-five miles distant. In this instance at least apples clearly showed a value "to speak of."

In 1901 I found myself with a farm on my hands for which I had little use. One circumstance—so considered—was an old orchard, composed largely of summer and fall varieties. There were a number of trees of a variety known locally as Richard Sweet that is now extinct so far as I know. They were formerly very popular for the making of apple butter, and people came for miles around to procure them for that purpose.

No Lost Appetites

The fall that I mention this old orchard being plentifully. Having no other use for the early fruit I drove to the orchard eleven hogs as soon as the early apples commenced falling, and left them there until the ground froze in November. They made a splendid growth and returned me good money for the fruit. Not being so methodical as my friend Smith, I did not weigh them at either end of the feeding period, so exact results could not be figured; but I was well satisfied that I received more for the fruit than I could if handled in another way. But much more gain will result from the feeding of a given amount of apples if they are picked up and fed at stated times and in proper amounts.

If you have ever heard the feeding of apples to swine discussed, you have without doubt heard it remarked how hogs get sore teeth and go off their feed in consequence. Here is where folks are mistaken—not as to hogs losing their appetites but as to the cause. Hogs are merely as indiscreet as are humans in their habits of feeding and stand it no better if as well.

G. W. Bunnell.

Susquehanna county, Pa.



8 Quarts a Minute with RAPID-FLO DISKS

Filter Every Can—Yet Quit Work on Time

Plop, plop, drop-by-drop, milk goes through old-fashioned filters, delaying everybody's way past quitting time—slower than ever on days you want to get away earlier. Waste time, waste money. Time saved is money earned. Old-fashioned filtering costs money, cuts profits because it takes so long.

No wonder Rapid-Flo, the new-day filter disk, has been welcomed by dairymen everywhere. Rapid-Flo has the speed of a milk train on the way to town. Rapid-Flo gets all the dirt in less than half the time. This advanced disk established an average period of less than five min-

utes to filter a 40-quart can of milk during extensive tests under actual farm conditions.

Your men can filter every can of milk you produce, with no more standing around waiting to pour another pail in the strainer, no more impatient jamming of the strainer on the can, which destroys the efficiency of the disk.

Rapid-Flo Disks are made of high-grade hospital cotton, under the same rigid sanitary conditions as the world-famous Johnson & Johnson surgical dressings and hospital supplies. Mail coupon below for Free Samples.

GET THIS FILTER DISK CABINET FREE

For a limited time your dealer can supply you with this attractive, convenient, steel disk storage cabinet (retail value \$2.50) free with an initial purchase of 600 Rapid-Flo Filter Disks. With the aid of this cabinet your disks are kept clean and dry and are within instant reach. Mail the coupon below for Free Samples of Rapid-Flo Filter Disks and complete information of the Free Sanitary Disk Cabinet.

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NEW BRUNSWICK, N. J., U. S. A.
Filter Products Division

Without obligation, send me your Free Sample Package of Rapid-Flo Filter Disks and information of your Free Sanitary Disk Cabinet Offer.

Name _____
Address _____

Check size of disks you use: 6" ☐ 6 1/2" ☐ 7" ☐ 7 1/2" ☐

DAIRY CATTLE

GUERNSEY BULL

one year old, fine type and good breeding. Sire is a son of England's Good Will; a son of Longwater Cavalier, Dan made 180 pounds of fat on twice a day milking with no silage. Period was 30 days. The owner does not wish to keep a bull on the place. For further information, address F. P. KERL, Mer., Dunbar Farm, Sewickley, Pa.

GUERNSEY BULL

Also bull calves out of A. H. dams, bred by Vanline's Guardsman, Dan 102 fat, grandchild 100 fat. We can spare two or three females. Accredited and Blood-Tested. WILLIAM BAUMGARTEL, Sewickley, Pa.

GUERNSEY BULLS

3 to 12 months. Registered and accredited blood. HARRY G. BINKLEY, Conestoga, Pa.

GUERNSEY BULLS, Registered, "Border Bred"

and "Longwater" breeding. Accredited blood. Rosales Farm, E. 2, Box 43, Conestoga, Pa.

REG. GUERNSEY BULL CALVES, Longwater

breeding. High record book of them. Farmers' Prices. A. J. FELL, Lansdale, Pa.

HOLSTEIN BULL, born June 1, 1929

Sire a grandson of Drusky Sensation and from an 1100 pound cow. Dan is large rugged cow whose production record was awarded prize money by the Holstein Association. Price \$150.00 shipped to rail. A clean herd. CRAOLA FARM, Clinton, Pa.

FOR SALE

Pure bred Holstein cows and heifers. Fully accredited. Olflyle Bros., Ulster, Bradford Co., Pa.

For Sale

Two Registered Jersey Bulls, one year old, ready for light service. Oxford and Golden Males Prime breeding. Danus are now on official test and going strong. W. A. WAGNER, Arc, Herd, H. E. Athey, Keedysville, Md.

TWO GOOD JERSEY heifer calves, 2 and 3

months from extra cows. Accredited herd. W. F. McFARRAN, Furness, Pa.

REGISTERED JERSEY BULLS and heifers, 6

to 12 months old. Accredited herd. Write us. J. M. MAIN & SONS, Shippensburg, Pa.

AYRSHIRE CATTLE of the best blood lines,

Herd T. B. Accredited. Animals of both sex and all ages. Geo. B. McConnell, Wallington, Ohio.

DAIRY CATTLE

JERSEY BULL CALF—Dropped 12-22-29

Solid color, excellent type, deep body, straight back, out of Register of Merit dam that made 8,825 lbs. milk with first calf at age 2 yrs. 2 mos. Calf sired by grandson of Schill's Champagne. First check for \$100.00 taken him. Federal Accredited herd and blood tested. HIGHLAND FARMS, Greensburg, Pa.

CATTLE

MILKING SHORTHORN CATTLE

HAMPSHIRE SHEEP

BIG TYPE POLAND-CHINA HOGS

Two bull calves, six months old, three younger, can furnish yearling heifers. All from high-producing cows. Five yearling rams. Bours and cow pigs. Pedigrees with all sales. Of the right type and right kind. If interested, write your wants. All shipments guaranteed. E. H. Williams, Narlington, W. Va.

BUCK & DOE RUN VALLEY FARMS

Hereford cattle, Poland-China hogs, Hampshire sheep, draft horses. THE SAINT AMOUR COMPANY, Morningside, Penna.

Angus Cattle

At reasonable prices. Write BAYARD BROS., Waynesburg, Pa.

D. S. POLLED HEREFORDS—A fine selection

of heavy, built, come or write. CHAS. D. GILL, Millersport, Ohio.

MILKING SHORTHORN BULL and HEIFER

Calves for sale. 2 to 1 months old, from good producing dams. Accredited herd. LEE R. SCOTT & SONS, Burgettstown, Pa.

HOMESTEAD MILKING SHORTHORNS,

Two Red bulls, 11 mos. old. Accredited herd. C. O. WAGNER, Westford, Pa.

REGISTERED YEARLING POLLED HEREFORD

BULLS. Fine type and markings. W. S. BROWN, Marion Center, Pa.

HORSES

HYLLMEDE FARM BELGIANS

A six-year-old Grand Champion Stallion, Mare, two, three and four years old. Priced reasonable. Inspection urged. HYLLMEDE FARM, Fred H. Cook, Manager, Beaver, Pa.

150 DAIRY COWS 150

Wisconsin Cows, Springers, Holsteins and Guernseys, T. B. and abortion tested and checked to ship to any state.

Private Sales April 10th and 11th.

Auction 10:00 A. M., April 12th.

WISCONSIN HORSE & DAIRY CATTLE SALES CO.

Trevor, Wisconsin

56 mi. northwest Chicago, 45 mi. northwest Milwaukee

SWINE

O. I. C. HOGS on time

Write for Hog Book. Originators and most extensive breeders.

L. B. SILVER CO., Box 596, Salem, Ohio

REGISTERED O. I. C. BROOD SOWS, service

bears, spring pigs, culled on approval. GEO. N. RUPRACHT, Mallory, N. Y.

REG. SPOTTED POLAND-CHINAS, Sows, boars

and pigs. Also Guernsey cattle. Write wants. A. M. KENNEL, R. 2, Honey Brook, Pa.

BERKSHIRE Pigs

Registered. Superior breeding stock.

WOLF CREEK FARM, R. 2, Slippery Rock, Pa.

REGISTERED BERKSHIRE PIGS, prize win-

ning stock. Unrated pairs. FRED HILMER, R. 1, Millville, Pa.

QUALITY CHESTER WHITE fall boars and

gilts. Chester lineage. Shipped F. O. B. on approval. A. H. Greenover, Mt. Sterling, Ohio

HAMPSHIRE Pigs

8 to 12 weeks old. Both sexes. Reg. for

J. J. Railing, R. 2, Shippensburg, Pa.

Feeding Pigs, 15 to 50 lbs. \$1.50 to \$2.00 accord-

ing size. Truck delivery on large lots. Month Poland-Chinas. Stanley Short, Cheswold, Del.

For Sale: 100 Six Weeks Pigs, \$3.00

INDIAN CORN HOG FARM, Dushore, Pa.

Farmer's Business Letter

FOR the first three months of this year livestock prices compare favorably with those of the first quarter of 1929, lambs excepted. For this period cattle and hog prices averaged almost exactly the same, this year and last. The lamb price average, however, was more than \$5 lower.

Receipts of cattle for the three months were about the same as last year, with the total the smallest in many years. Hog receipts decreased 6 per cent for the quarter. Sheep receipts at the seven leading markets showed an increase of 20 per cent over the first three months of last year. The combined total of all livestock is about the same so far this year as last year.

Stewers Gain
The cattle market showed a spurt during the first half of the week, but the gains were largely lost at the close except on heavy steers which held a gain of 25 to 70 cents over last week. Receipts were moderate, 35,000 here, against last week's very light run of 22,000, and comparing with 46,000 the same week last year and 45,000 two years ago.

Average price of steers this week advanced to \$12.40, comparing with \$11.75 last week, \$12.65 the same week last year and \$13 two years ago. Top cattle sold this week at \$15, at an average weight of 1,750 lbs., these steers averaging \$262.50 a head.

Lambs Still Lower
Lambs were mostly 25 cents lower for the week, even with some decrease in the run. The supply is very large, however, for the time of year, since Colorado and Nebraska feeders are still unloading at a rapid rate. The run here this week at \$4.00 compared with \$4.00 last week, \$4.00 a year ago and \$4.00 two years ago. And Colorado supplied 50,000 of the lambs this week against 55,500 last week.

Average price of lambs was \$9.75, against \$10 last week and \$16.70 a year ago.

The springers will soon start running in numbers, and there is nothing of an optimistic nature in the situation.

Hogs Steady
It was a very steady week in the hog market, which is to be looked on as encouraging in view of an increased offering. Average price for the week at \$9.50 was the same as last week, and \$1.50 under a year ago, though \$1.85 above two years ago. Prices are still at a profitable level for the producer. Eleven markets had 475,000 hogs this week, against only 419,000 last week, 505,000 a year ago and 678,000 two years ago. To date this year these markets have received 7,665,000 hogs, comparing with 8,127,000 last year and 10,130,000 two years ago.

The feeling in hog trade is a little better. In the futures market, April light hogs sold at \$10.35/10.70 this week, May lights at \$10.40/10.50 and September lights the same. The September quotation last week was \$10.25, September heavies sold at \$9.65 this week, with no sales last week. There were 31 sales in the futures market this week, against 32 last week. Its backers feel that this is a good showing.

Quiet Grain Trade
Grain prices showed very small changes this week, nor were there any wide swings from day to day. The trade is marking time and wondering what the Farm Board intends to do with the wheat it has accumulated. The Board has not said how much wheat it owns. Estimates run from 40,000,000 to 80,000,000 bushels.

The Department of Agriculture came out with its acreage forecast this week: A 2.8 per cent increase over the acreage given to corn last year was indicated by reports as of March 1. The government estimate is based on information received from about 50,000 producers. The corn area harvested in 1929 was 98,018,000 acres.

Potato planting intentions was 103.4 per cent of the acreage grown for harvest in 1929. Potato area harvested last year was 3,370,000 acres.

Other planting intentions estimated by the department were:

Oats, 102.5 per cent of acreage grown for harvest in 1929, barley, 101.7 per cent; flaxseed, 127.2 per cent; rice, 112.1 per cent; grain sorghums, 108.2 per cent; sweet potatoes and yams, 108.2 per cent; tobacco, 105.7 per cent; dry

edible beans, 114.6; peanuts, 94.9; soy beans, 118 and cowpeas, 112.5. Chicago, March 29, 1930. Watson

CHICAGO CASH GRAIN
Chicago, Ill., March 31.—The following cash prices ruled here today: No. 1 hard wheat, \$1.07 1/4; No. 3 yellow corn, 80 1/4; No. 3 mixed corn, 80 1/4; No. 2 white oats, 44 1/4.

HAY AND STRAW
Philadelphia quotations.—No. 2 timothy, \$18.50; No. 3 timothy, \$15.50; sample hay, \$13; No. 1 mixed clover, \$18; No. 2 mixed clover, \$15.50.

No. 1 straight rye, \$18; No. 1 wheat straw, \$12.50.

FEED MARKET
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LIVESTOCK

PITTSBURGH Cattle

Monday's supply was moderate, about 23 carloads, and the demand was not extensive or urgent. Buyers bid lower on everything and were able to buy steers at a decline of a quarter, in some cases more. Good fat steers of handy and heavy weights brought \$12.75/13, few above \$12.75. Good weighty killers went at \$12.25 to \$12.50, averaging 1,200 lbs. or over. Good handy-weight steers brought \$12.25/12.50, largely a few \$12.35/12.50, but they had to be good to beat \$12.25. Medium kind of handy-weight steers sold at \$11.25/11.50, buyers of this class getting more for their money than in the recent past. More light butcher steers were in evidence than in recent weeks, selling at \$10.50/10.75. Fat cows were scarce, few selling above \$10.75, but a few were well, not many going above \$8.50, but an occasional good young cow \$8.50 or more. Cows moved readily at \$8.50/8.75, looking dear as compared with better kinds. Bulls were weak and lower, with \$8.50 the outside figure for heavy weights and buyers refusing to pay that much at the close. A few choice handy-weight bulls brought \$8.75/9 but not many above \$8.50.

Choice fat steers, 1,200 lbs. or over, 12 75/13 00
Good to choice, 1,200 lbs. or over, 12 50/12 75
Fair to good, do., 11 50/12 25
Plain heavy steers, 1,200 lbs. or over, 11 50/12 00
Choice handy-weight steers, 1,200 lbs. or over, 12 00/12 25
Good butcher steers, 1,000 to 1,150 lbs., 12 00/12 25
Fair to good, do., 11 50/12 00
Ordinary to fair, do., 11 00/11 50
Common, do., 10 00/11 00
Good light butcher steers, 1,150 to 1,200 lbs., 11 75/12 00
Fair to good light steers, 1,150 to 1,200 lbs., 11 50/11 75
Common to medium, do., 10 50/11 00
Inferior light steers, 1,000 to 1,150 lbs., 10 00/11 00
Feeders, 9 00/11 00
Stockers, 8 00/11 00
Choice fat heifers, 1,000 to 1,150 lbs., 10 75/11 00
Good to choice heifers, 1,000 to 1,150 lbs., 10 50/11 00
Fair to good heifers, 9 50/10 25
Common to fair heifers, 8 00/9 50
Choice fat cows, 8 50/9 75
Good to choice fat cows, 7 50/8 50
Fair to good cows, 7 00/7 50
Common to fair cows, 6 50/7 50
Canners, 5 00/6 50
Fresh cows, calf at side, 6 00/6 50
Choice heavy bulls, 8 25/8 50
Choice handy-butcher bulls, 8 50/9 00
Good heavy bulls, 8 25/8 50
Fair to good bulls, 7 75/8 25
Common to fair bulls, 7 25/7 75
Inferior bulls, 6 00/7 00

Hogs
Monday's supply was about 25 double-deck carloads. Demand was not broad

Clipped

Good to best wethers, \$6.50/6.75
Good mixed, 6.00/6.50
Fair to good, do., 5.00/6.00
Common to fair, 4.00/5.00
Inferior sheep, 3.00/4.00
Good to best lambs, 4.25/4.50
Medium lambs, 4.00/4.50
Culls and common, 3.00/4.00
Woolled sheep, 5.00/5.50
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Calves
Monday's supply was about 700 head. Good veal calves were stronger at \$15 per cwt. Others were dull and showed little change, selling at \$11/12.50 for seconds and \$8/10 for milk of culls.

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VEGETABLE PLANTS—Look your orders for Cabbage, Tomato and other plants for May delivery. Special prices on large orders. R. B. Lookford, Franklin, Pa.

CORN SEED—Shelled, very early, high yielding. Blue, Sure to mature. Other tested and recommended varieties for husking and silage. Quaker Hill Farm, Box 1, Honesdale Falls, N. Y.

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Soil Organic Matter

(Continued from page 5.)

After eight years the writer had soil of each plot of the two systems analyzed for soil organic matter and nitrogen. Having taken samples of soil at the beginning of each experiment I was able to determine what changes had taken place.

Here is what happened in eight years. The soil in permanent grass gained 20,329 pounds per acre of organic matter compared to 9,675 pounds for the rotation soil. The pasture soil gained 910 pounds nitrogen compared to 490 pounds for the soil in rotation. Each soil was treated with limestone, superphosphate and potash. Can you not see from these figures how rapidly you can build up a run down soil with permanent blue-grass pastures?

Manure Versus Commercial Fertilizer

Now in concluding this story on soil organic matter, let me see how commercial fertilizers compare with farm manure in maintaining soil organic matter. Let us select for our comparison four old Pennsylvania plots—those that have received six and ten tons manure every other year and the plot which has received 100 pounds potash and 300 pounds superphosphate applied also every other year. In each case the materials are applied to corn and wheat ground. We will include for comparison the average of the unfertilized plots. Results are based on average yields for first 40 years.

| | 6 tons 10 tons | 100 lbs. P. 300 lbs. S. | Unfertilized |
|---|----------------|-------------------------|--------------|
| Annual yield | 56.3 | 58.2 | 52.1 |
| Corn, bu. | 42.1 | 44.4 | 42.3 |
| Oats, bu. | 23.8 | 25.9 | 19.1 |
| Hay, lbs. | 3,894 | 4,225 | 3,990 |
| Total wt. crops | 17,252 | 18,652 | 16,498 |
| Lbs. soil organic matter per acre (end of 40 years) | 64,616 | 67,374 | 61,202 |

Here you have before you the open page of 40 years experimental results made possible by the joint work of the farm crops and soil specialists. Now you see what you may expect from the use of a commercial fertilizer containing no nitrogen as compared to manure. The yields are sufficiently impressive to speak for themselves. Then let us see about the organic matter maintenance during these 40 years—long enough to draw conclusions, isn't it? Well here is what has happened.

The ten-ton manure treated soil has in 40 years received 200 tons farm manure which supplied 40 tons of organic matter. This manured soil at the end of this period is found to contain only 3.1 tons more organic matter than the commercial fertilizer treated soil.

Without Manure

What is the conclusion? Simply this. In this type of rotation manure has been valuable largely in causing an increase in crop yields and has increased the organic matter to a limited extent by making it possible to turn down more crop residues. The actual organic matter supplied in manure has almost entirely disappeared. Our conclusion, then, is that it is entirely possible to maintain the soil organic matter in a grain rotation without the use of animal manure, provided you supply a liberal amount of lime, phosphorus and potash.

Where does the nitrogen come from when you use these two fertilizer materials? I have already told you. The yields given above show that enormous nitrogen has been supplied—all from the air supplied by the farmer's best little friends, the untold millions of soil bacteria so small you cannot see them without the aid of a microscope. But do you realize that on this soil we are talking about these little friends have supplied in forty years enough nitrogen (in addition to that lost in drainage water) to produce 1,135 bushels of grain equivalent to the nitrogen contained in five tons of nitrate of soda. Quite remarkable, don't you think so? What are you going to do about it?

EPENABLY NURSERY STOCK

FRUIT THE GRAPE VINE BERRY PLANT

FLOWERING SHRUBS AND ROSE TREES

APPLE TREES

Baldwin, Corlett, Delleme, Greening, Red, Northern Spy, Wealthy, 2 1/2, 4 to 5 1/2 each. \$2.00 per 100.

PEACH TREES

Elberta, Hale, Rochester, South Haven, 2 1/2, 4 to 5 1/2 each. \$2.00 per 100.

CONCORD GRAPE VINES

1 year, 100 each. \$5.00 per 100.
2 years, 150 each. \$8.00 per 100.

BUTTERFLY BUSH

Shrub, 2 1/2, 4 to 5 1/2 each. \$2.00 per 100.

VIKING NEW SEED RASPBERRY

Many other items at special prices. A dollar saved is a dollar made. All stock fresh and guaranteed. Write for price list. Send for FREE Catalog.

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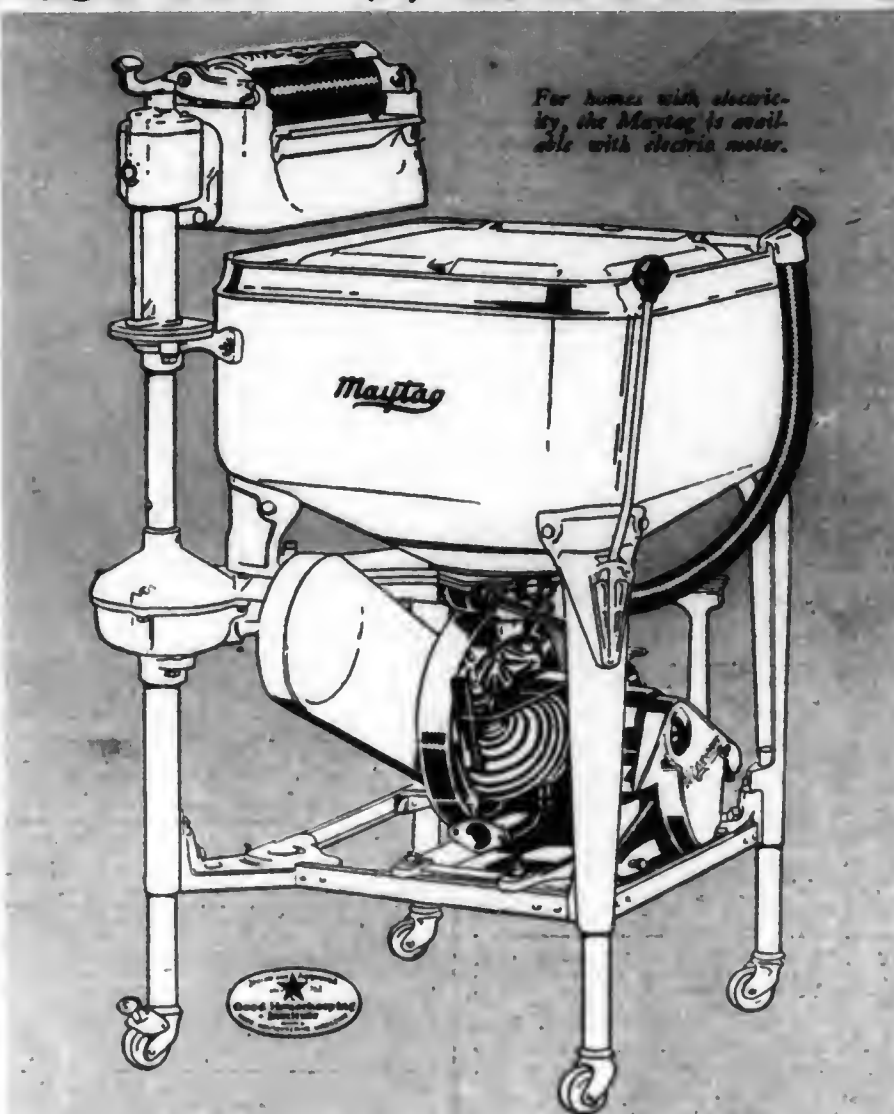
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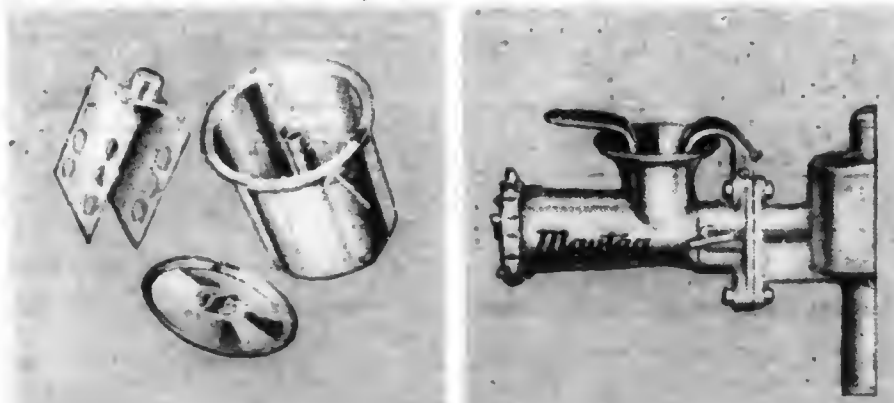
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Power Churn Attachment

The Maytag churn attachment is an aluminum churn of 3 gallons churning capacity. It sets over the gyra-tator post and utilizes the same power that washes the clothes. Water in the washer tub keeps the cream at the proper churning temperature. Easily cleaned, durable and a time and labor saver.

F-4-30

A Power Meat Grinder Attachment

By simply lifting off the Roller Water Remover, this New Meat Grinder Attachment may be set over the shaft head of the power leg. Grinds sausage, mince meat, chops nuts, raisins, fruit, relish, etc. Saves time and labor. The churn and the meat grinder attachments are additional equipment sold at reasonable cost.

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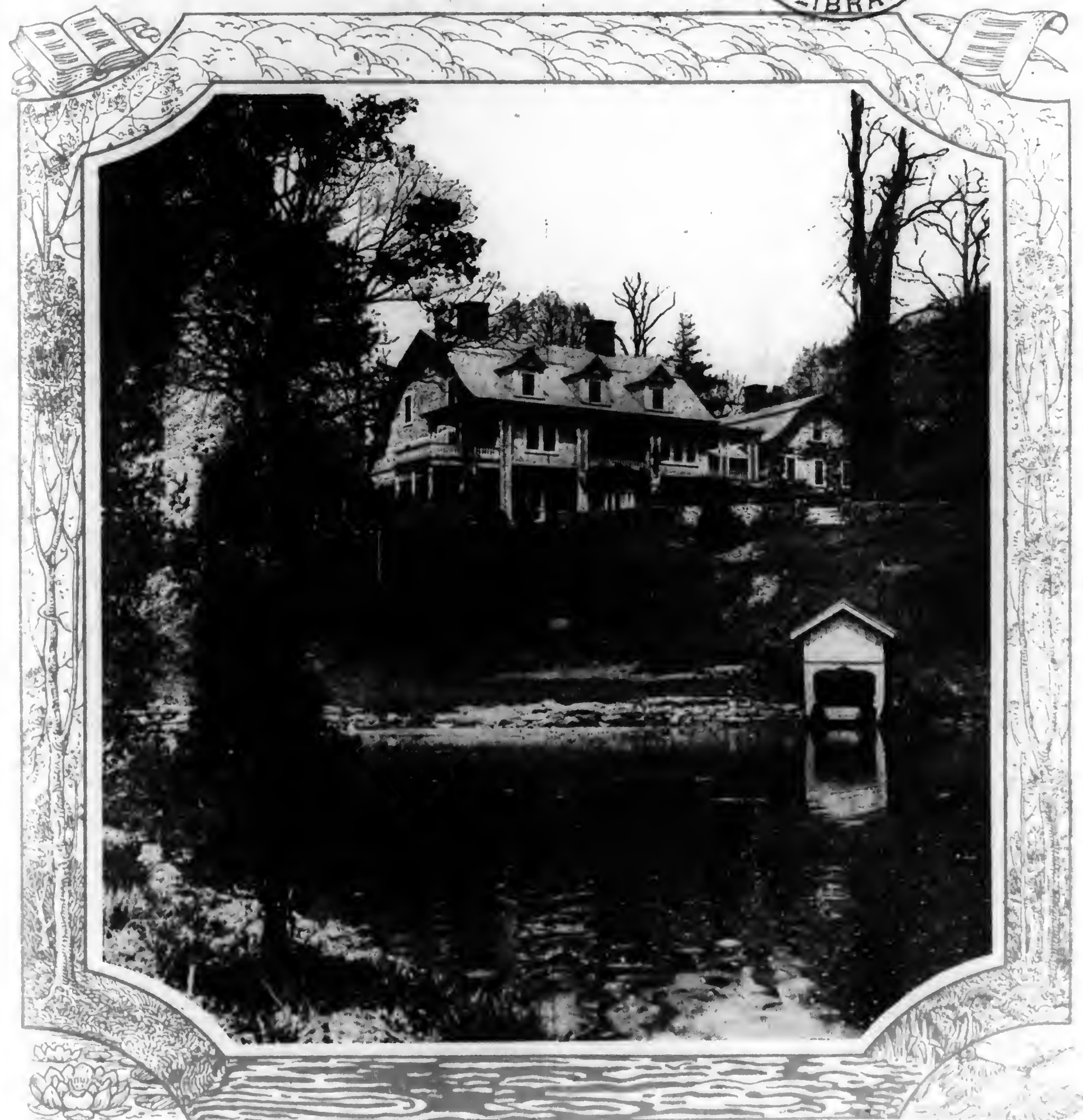
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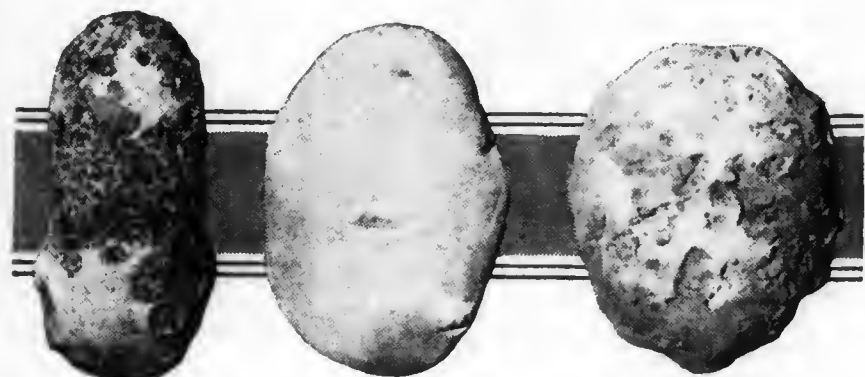
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You can grow MORE NO. 1 POTATOES by instantaneous dip seed treatment



Semesan Bel seed treatment produced the sound potato at the center.
The diseased tubers on each side were grown from untreated seed.

Semesan Bel treatment saves time Controls surface-borne diseases Improves and increases yields

As long as you do nothing to stop the development of scab, Rhizoctonia and black leg in your field, you cannot expect a big yield of No. 1 potatoes. These diseases not only reduce plant vigor, but also injure potato quality.

You can prevent this crop damage by treating seed potatoes the new easy way—with Du Bay Semesan Bel. Tests by authorities and practical use on thousands of farms have proved that Semesan Bel controls surface-borne diseases, increases yield per acre and generally improves the crop.

Instantaneous dip treatment

Old-fashioned, mussy soak treatments for seed potatoes mean wasting from an hour and a half to two hours on every lot of seed. Frequently, they result in seed injury. Semesan Bel treatment is instantaneous. And it is safe. Just dip the seed potatoes and plant. With this quick method, one man can easily treat as much as 400 bushels of seed a day.

Semesan Bel increases yields

In 1928 Maine tests, according to *Phytopathology* for January (1930), Semesan Bel treatment of clean seed produced a yield increase of 58.2 bushels per acre.



SEMESAN BEL

Instantaneous Seed Potato Dip
CERESAN for Seed Grains and Cotton
SEMESAN for Flowers and Vegetables
SEMESAN JR. for Seed Corn

Ask Your Fertilizer Man About

4-8-7

It Makes Potatoes Pay!

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Farm Facts and Fancies

By ALVA AGEE

DURING a long lifetime of experiment with soils and crops Dr. Charles E. Thorne has seen the introduction of many legumes for soil improvement, and some of them have great value, but it is interesting to learn from some study of his new book, "The Maintenance of Soil Fertility," that in his estimation red clover has not been displaced as our most valuable legume. In one place, discussing the furnishing of nitrogen to the cereal crops, he says: "The common or medium red clover is the crop most generally grown for this purpose, and the experiments described in the previous chapter have shown it to be the most effective of the crops ordinarily grown."

The Nitrogen Supply

Drawing conclusions from long-time tests of a rotation of corn, oats, wheat and clover on limed land, Doctor Thorne says: "It appears therefore that if the supply of available phosphorus and potassium be made ample, and if the land be kept hospitable to clover by liming when necessary, the root growth of clover, grown in rotation with other crops, may be relied upon to furnish to subsequent crops, directly or indirectly, more than half as much nitrogen as that contained in the hay, and that the nitrogen thus supplied will so nearly meet the requirements of two or three crops following the clover that the application of nitrogenous fertilizers will be without effect on many soils and of relatively small effect generally."

Supplying Organic Matter

Comparing manure and clover as means of improving the texture of the soil, this author says: "There can be no question that manure or other fibrous material will improve the texture of the soil and increase its capacity to retain moisture, provided it is used in sufficient quantity. . . . It must not be forgotten that no practicable use of manure on the farm will so completely incorporate organic matter with the soil as will the growth of a good crop of clover, even though the hay be removed from the land."

An Index to Lime Supply

We can rarely go wrong in taking it for granted that a poor growth of clover is evidence of a soil's lack of lime. It is a test running along on millions of acres year after year. The Ohio Experiment Station has one twenty-year experiment whose results tally exactly with country-wide experience. Less than half a ton of clover grew where no lime or fertilizer was applied, and lime brought the yield up to nearly a ton. Lime alone usually is insufficient. The results of the experiment show an increase of fifty per cent over the lime alone when phosphoric acid and potash were added. Clover and the two mineral fertilizers make a great team and need to be hitched up and put to work by many a man who is disheartened by lack of soil fertility.

A Fast Worker

We are using far more nitrogen in the fertilization of crops than formerly, and its use will increase as big commercial organizations continue to call our attention to its need. I believe that this is to our advantage. Station tests indicate that it is out of the question to make some staple crops pay for their total supply of nitrogen, and legumes and manure must be a chief dependence for them, but the use of some nitrogen as a supplement makes the difference oftentimes between a discouraged crop and a thrifty one.

But we need to note Doctor Thorne's emphasis on the fact that nitrate of soda and sulphate of ammonia do not

stay in the soil very long but must be used in a single season or be lost. We see the effect of applications the second season, but that is from the organic matter produced in the soil and left in it by the crop to which it was applied. The supply of organic nitrogen is released when the soil warms up the next year and organisms go to work. Nitrogen does not stick around like phosphoric acid and potash, and only a trap can hold it.

Raw Rock Phosphate

Tests have been made at various stations to determine the relative values of acid phosphate, which we now call superphosphate, and the untreated rock. The results have not been in agreement, and that was puzzling. If raw rock was the cheaper source of phosphorus, we needed to know it. As time goes along we seem to have found that the raw rock may be the cheaper carrier for some acid soils, but that the superphosphate is far better for soils that have a normal amount of lime in them. Even in the case of acid land the raw rock may not yield as much profit as the treated rock. From a study of various tests Doctor Thorne concludes: "As a carrier of phosphorus alone, raw phosphate is distinctly inferior to superphosphate."

Annuities

A hard-working woman had nearly five thousand dollars to provide for her old age. She invested in the stock of a land-buyers' association that had some men of high local standing in its board of directors. It bought but could not sell, suits are being brought, and holders of stock are facing loss. When people have no children and have limited capital, I wonder that some of those thus situated do not buy life annuities from one of the great corporations of national standing that sell them. The money is about as safe as can be in this world, and is not taxable, and the income is not subject to the income tax. The payments, monthly, quarterly or annual, are larger than ordinary interest because the corporation gets the principal at the death of the annuitant.

A husband and wife can secure a joint annuity payable to the survivor till death. The advantages are safety, a relatively high return on the money if the annuitants are elderly, and certainty of getting it until death. One's banker can give the names of the three or four best known institutions engaged in this business. Of course all the capital should not be used in buying annuities as that would leave no extra funds for emergencies. We have readers so situated that they should consider this method of adding somewhat to income with safety.

Chard

THIS is one of the two leaf vegetables on which we can rely for an unfailing supply of summer greens. Leaves and midribs are sometimes served separately.

Plants should be thinned to a spacing of ten or twelve inches. If planting is done by hand and four or five seeds dropped at the proper interval, the labor of thinning is reduced. Plant three-quarters of an inch deep. Leave at least a foot and a half between chard and the next row of vegetables. Rich soil is desirable for chard. Like all leaf crops it needs nitrogen. Stable manure is good or a commercial fertilizer with a good amount of nitrogen.

In gathering chard, two or three young leaves are taken at a time from each plant. New leaves are soon produced, and greens may be had all summer and late into the fall, as it takes a heavy freeze to put chard out of business. Lucullus and Silver Leaf are good varieties.

Soil Fertility

WHEN man took possession of the land, the soil he found was created to produce food, not for man alone, but for all living kind, and the farmer's reward for labor and seed depends on the fertility of the land plus good seed bed, good seed and good cultivation.

Thus the farmer's success in annually growing bountiful harvests, largely depends on his ability to retain the fertility of the land while such crops are being grown, and it should be the work of the local Farm Bureau to devote much of its time in assisting the farmers in restoring the many acres of over-worked and under-fed land to its former producing power.

That was the object in mind held by those who fostered the Farm Bureau movement, and was practiced for some years with encouraging results in Harrison county and there is still room for continuing.

Success comes to the farmer who labors to repair the mistakes made in failing to retain the fertility of the land. Not until the farmer, like the prodigal, realizes his situation can he hope for a bountiful harvest; and in like manner the Farm Bureau cannot hope for a large membership of interested members, if they do not bring assistance to the farmer in restoring the land to its former fertility.

An Opportunity

The value of a heavy sod to the land cannot be overestimated, and the character of the sod is a reliable index of the fertility of the land, because when plowed down it furnishes a large amount of organic matter that becomes food for the following harvests.

I know of no place where the Farm Bureau can find a better opportunity to gain the confidence of farmers of the county than to devote much of its time in assisting them in improving the fertility of their tillable land and in developing a heavy sod on their grazing land.

The Farm Bureau has done much toward eliminating the boarder cows from the dairy herd, which is well and good, but the work of changing the non-producing acres to producing acres has been neglected. There is no question about the advisability of culling out the boarder cows from the dairy herd, but there is a question why the Farm Bureau has not taken a more active part in showing the farmer how to improve the non-producing acres on his farm.

The financial backbone of the agricultural industry in West Virginia rests on a bountiful hay harvest, and good grazing sod; without these the farmer faces failure, though he may grow a small acreage of potatoes and keep a flock of chickens on the side; but his main dependence is hay and pasture.

John D. McReynolds.
Harrison county, W. Va.

A Prolific Sow

HAVE read in your paper of some record brood sows and think we have one that is hard to beat. Her first litter was on March 21, 1928, ten little ones; second on September 20, 1928, eight pigs; third litter, August 28, 1929, eleven pigs, and fourth litter on March 11, 1930, thirteen youngsters, and all are doing fine so far.

This makes 42 pigs from one sow, and we raised 41 out of the 42. I think that is a record hard to beat. What do you people think of it?

L. A. S.

Pepper for Pests

THIS might help subscribers: Rabbits and woodchucks are bad here, but when they eat my beans, peas, carrots, cabbage or squashes I go out to the garden early in the morning when dew is on and sift cayenne pepper on leaves and little squashes. I have never been bothered again that summer when I have used this method of discouraging the appetites of these animals.

Mrs. A. L. Teed.
Crawford county, Pa.

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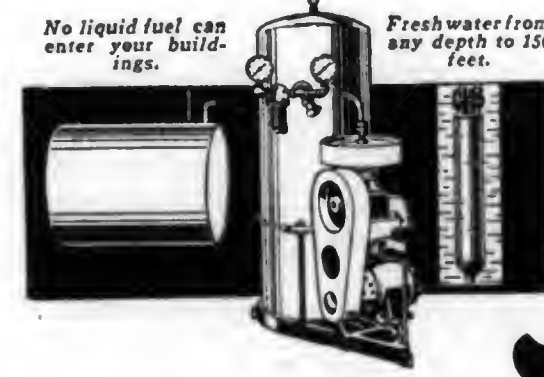


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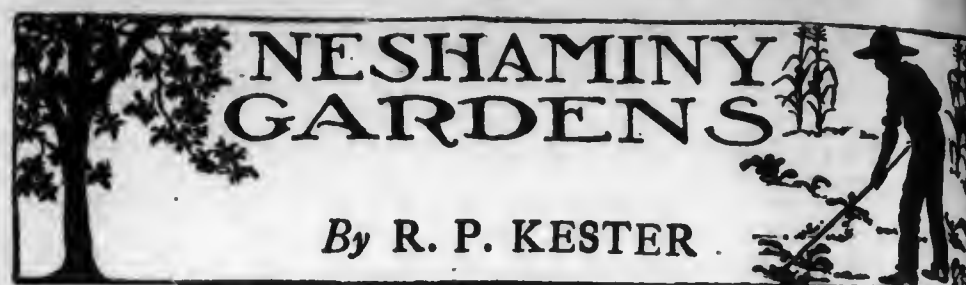
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By R. P. KESTER

SPRING is here, is here! So say the almanac and the birds. But in many places it is buried under a foot or more of snow, and the howling winds are anything but the gentle zephyrs of spring time. But surely it is just around the corner, and a few days will see active farm work begun. I can remember when the different stages of farm work were mentioned by town and city papers alike as indicating the progress of the seasons. Now they are scarcely mentioned even by small town newspapers, so far have we become industrialized and city-minded.

Some time ago I mentioned here the need for improvement in tenant houses on the farm. We are prone to sympathize with those who must live in the slum districts of the cities because the landlords will spend nothing to make the homes they rent convenient or even sanitary. But such slum houses are not all in the cities, nor are all the parsimonious landlords city real estate men. Here is part of a letter received from a woman in an adjoining state, part of which bears on this subject:

"I am a constant reader of your articles in Pennsylvania Farmer. Sometime ago you wrote an article on homes or tenant houses for farm help. My husband is a hired farm hand, but I always find out what kind of a house I am going to get into before he will take a position. We will not take an old, dirty, tumble-down house. We have lived on three farms and have always had a nice home—running water in two of them, and a sink in all three. Our present boss is one of the finest men to work for that ever was. He has fixed up our house this year, and is now planning to put in a bathroom. Oh boy! how glad we'll be.

"How can any farmer expect a decent hired man to live in some of the houses, or shacks, that pass as farm help houses? Some I have seen were out back of the barn, close to the barnyard. I would much rather be a half-mile away.

"Well, Mr. Kester, I am going to ask you if there is any way to get a hired man to take a chance and go into debt to get a start at farming. My man has had several chances on a fifty-fifty basis and the owner find all the tools and half the seed and fertilizer. But, no, he will not take a chance. I told him he has not as much faith in himself as I have in him. I know he would make good, for he is that kind of a man."

That's what I call a good letter. You can feel the energy and realize the push there is behind it. A good man (such as she says hers is) and that kind of wife should be able to make good on a good farm. Of course, during the last few years the well-paid hired man has had fewer sleepless nights than has the owner of the farm. But it does seem as if we must be about out of the wilderness and that we shall soon see the promised land. This may be a good time for the farm-minded man and woman to go into business for themselves, provided they do not go too heavily into debt.

This lady has it sized up right. It would be taking a chance. In fact every farmer takes a chance when he invests in land, machinery, fertilizers and seed. The business of living is a series of chance taking, with the odds in favor of those who have industry and intelligence. Taking chances lends zest to life and the knowledge of having tried valiantly to win

is worth the price paid, even if financial success is not great. (That's enough of the sermonette.)

I had a mighty interesting letter some days ago from a friend out in western Pennsylvania. It was inspired by something I had said about taxation. He wants me to get it over to farmers and other "common people" that it is they who pay all taxes in the last analysis; that under our present plan taxes are passed on to the consumer by landlords, big business and corporations. In the end farmers and consumers in general would not see the difference even if taxes were "equalized" by placing a heavier tax on corporations and personal wealth. This tax would be added to services and necessities and passed on.

Well, there is a lot of truth in that. A politician said years ago when he was being criticised for taxing business: "Corporations are not tax payers; they are tax collectors." And usually plenty is allowed so as to be sure to have enough to cover possible taxes. After the war the movie people raised a big howl about the amusement tax of ten per cent on admission tickets. They claimed that it was an unfair burden on the public. Finally, it was removed on low-priced tickets. The admissions were reduced—twenty-five cent tickets were sold at twenty-two cents, fifty cent admissions were made forty-five, etc. This lasted a short time, but very soon they were put back to former rates, and the amusement people pocketed the tax that had been removed from the "dear pee-pul."

Friendly Talks

By
Edgar L.
Vincent

I STOOD and looked at a farmer man as he lay all alone in "the other room" of his comfortable country home. Flowers everywhere, window shades pulled down, so still, so peaceful the look on his face. Friends went around quietly and spoke to each other in whispers.

I looked everywhere, but there was no sign that he was taking his pocketbook with him. He had been a hard working man all his life. Folks said he was comfortably well off, and yet now that he was starting away on this long, long journey still he had not thought he would need any money.

And that is the way it will be with us all when life slips its cable and we pass out bound for the other shore. Millions of dollars in the bank, vaults full of railroad stocks; and still not a dollar, not a dime, not even a shiny five-cent piece in our pockets when life's great day comes, and still he had his treasures.

Under the shade of one of the big trees in the front yard two farmers sat talking together of the night when their neighbor sat up with them out in the cold barn, caring for a sick horse. In another place one woman was telling another how her little girl used to put up her hands and run to meet this cheery faced farmer when she saw him coming. And these were the things he took along with him, over to the other country.

And it will be so with you and me. The money we use in making our own homes and our own dear ones happy, the things we do to make our neighbors and the world better will be the things that are stored up for us in the memory of our loved ones and in the treasure house Over Yonder.

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Potatoes require not only an abundance of plant food but it must be properly balanced for the soil conditions. This photo shows the effect on potato plants at the New Jersey Experiment Station when one plant food element, phosphoric acid, was omitted from the fertilizer.

SCATTERED about throughout 30 leading potato-producing counties of Pennsylvania, there are 1,297 growers who supplied the facts and figures on which this article is based. Included with them are 260 potato growers in Maryland and 327 in New Jersey who also furnished information on the use and effects of fertilizer in this survey made by The National Fertilizer Association.

These farmers were personally interviewed and asked questions regarding their experiences and observations in the use of commercial fertilizer. Some of these questions brought out valuable information concerning fertilizer effects on individual crops like potatoes. What these men had to say about yields, market quality, disease resistance and maturity of the potato and other crops is summarized here briefly.

One of the questions asked was "From your general experience what increases do you expect from the use of fertilizers on your most important crops?"

Another question was "Have you noticed any effect of fertilizer on the market quality of crops?" Still other questions were "Have you noticed any benefit from fertilizer in giving crops a quicker start?" "Resistance to disease?" "Earlier maturity?"

The answers given by nearly 1,900 potato growers in Pennsylvania, New Jersey and Maryland should represent very closely the cross-section of results that can be expected generally throughout those states. How they replied to these questions is shown in the following paragraphs.

Increased Yields

What crop increases? In Pennsylvania 1,297 growers estimated their yields at 130.4 bushels without fertilizer and 223.8 bushels with fertilizer, or an increase of 93.4 bushels per acre, as an average. New Jersey farmers reported only 66.2 bushels without fertilizer and 224.7 bushels with fertilizer, or an average increase of 158.5 bushels per acre. In Maryland the yield expected with fertilizer is 151.5 bushels, or 93.4 bushels more than without fertilizer.

Now, if we take the average farm price of potatoes on December 1 for the four years, 1926-1929, as the basis, we find these average increases to be worth \$120, \$188 and \$97 per acre, respectively, for Pennsylvania, New Jersey and Maryland. After deducting the cost of fertilizer and the expenses for labor, power and bags incidental to producing

What Potato Growers Say About Fertilizer

By H. W. WARNER

and marketing the extra bushels, there still remains a long profit on the investment in plant food. To this profit add a few cents per bushel for the entire yield on account of the higher market quality of the fertilized tubers.

What about quality? Do fertilizers improve the market quality of potatoes? That such is the case is a matter of rather common observation but it is worth while to report the experiences of farmers in these three states. The question was asked for crops in general, but for so responsive a crop as potatoes the findings should have a direct application. In Pennsylvania more than 70 per cent of the fertilizer users replied "Yes" to this question; in New Jersey, more than 80 per cent; in Maryland, more than 75 per cent.

Promotes Early Start

Quicker start? More than 90 per cent of the fertilizer users in Pennsylvania report that fertilizer gives crops a quicker start. The percentages for Maryland and New Jersey were even higher. The advantage of a quick, vigorous start, particularly in cold, backward seasons, is so well known as to need no special comment. Although, as stated before, the question was asked regarding crops in general, the answers include, and apply for potatoes as well as for corn and other important crops.

Greater disease resistance? Almost 40 per cent of the fertilizer users in these three states have observed that fertilizers increase the disease resistance of crops. While it cannot be argued that such treatment will control or prevent diseases, there is no question that well-fed plants are more vigorous and healthy and thus better able to resist diseases.

Earlier maturity? Nearly 90 per cent of the fertilizer users in these states answered "Yes" when asked if they had found that fertilizer hastens maturity of crops. This implies not only early crops, but also uniform ripening of the crop.

Crop insurance best describes the combined effect of quick start, disease resistance, early ma-

turity, good quality and high acre-yield. And these mean larger and more certain profit for the potato grower. The crop-insuring possibilities in the use of modern and approved practices, including liberal fertilizer treatment, are well illustrated by the achievements of the large numbers of Pennsylvania farmers who gained membership in the 400-Bushel Potato Club last year in spite of an extremely dry season.

The above statements express the summary of observations and experiences reported by many hundreds of potato growers with respect to the effects of fertilizer on their crops. Additional information given by these and 3,000 more growers in the other important potato producing regions furnishes some valuable data on the subject of "rate of application and its effect on net profit."

Taking the average price of potatoes for the past five years as the basis, fertilizer applications of less than 100 pounds of plant food (averaging about 280 pounds of fertilizer containing 20 per cent of plant food) returned average acre profits of \$83 after all expenses of fertilizer, harvesting and marketing are deducted. Applications of 200 to 300 pounds of plant food (averaging about 1,220 pounds of 20 per cent fertilizer) returned profits of \$126 per acre; rates of 400 pounds of plant food or over (averaging about 2,125 pounds of 20 per cent fertilizer) gave acre profits of \$151.

Evidence Favors Heavier Applications

The above figures on rate of application and acre profits include many from New Jersey and the Eastern Shore of Maryland where heavier fertilizer applications are needed than for most farms in Pennsylvania. The evidence strongly supports the using of plenty of fertilizer, somewhat more than the average amount used by all growers.

The reports of these hundreds of potato growers fully justifies the recommendations made for applications of 1,000 or 1,200 pounds in Pennsylvania and western Maryland, and 1,200 to 1,500 or more in New Jersey and on the Eastern Shore. The results of experiment station tests and the experiences of members of the 400-Bushel Potato Club in Pennsylvania indicate that the fertilizer should contain three to five per cent of nitrogen, eight to ten per cent of phosphoric acid and six to eight per cent of potash.

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FROM LIFE

FOR over sixty years, all his working days, he trained and raced horses, always hoping for but never finding the great one that would bring him fame and fortune. He never knew any other occupation and would have been content in no other. His business would not appeal to all of us; but in this free land every man is entitled to live his life as he chooses, to live on minor successes while he dreams of greater ones.

MUSSEL SHOALS

LAST week the Senate passed the bill to create a federal corporation to operate the Mussel Shoals plant. This means more government in business, more federal employees, more waste, more loss and more trouble of various kinds. Let us hope that this bill gets no farther. The thing to do with Mussel Shoals is to lease or sell it to the highest responsible bidder, with only one string attached to the property—repossession by the government in case of war.

HOG FUTURES

IN the first month of its existence business on the hog futures market totaled 184 carloads, representing 13,250 hogs weighing 3,036,000 pounds. This new and only livestock futures market is said to be working to the satisfaction of all interests. But if it gets much bigger we may confidently expect somebody in each House of Congress to arise and denounce gambling in hogs as ruinous to the producers thereof.

TOO FAR

THE government of Saskatchewan has introduced what is known as the primary products act. It authorizes a vote of growers to determine whether marketing wheat through the pool shall be compulsory. If the majority should vote for compulsory pooling any other method of selling grain would be illegal. Maybe this scheme itself will be found illegal, but it is a good example of cooperation gone crazy. For the moment cooperation becomes compulsion it is no longer cooperation.

ANOTHER YEAR

ALEXANDER LEGGE has consented to serve another year as Chairman of the Federal Farm Board. It should be remem-

bered to his credit that his public service is at a great personal sacrifice. Probably he and his associates have done as well as any board could be expected to do with a law which they admit they do not understand and for which there is no precedent in our history. Time will show the fallacy of this law's stabilization plans, but the members of the Board are not responsible for the law or any part of it, and cannot be held accountable if impossibilities continue to be impossibilities.

POSSIBLE MASTER FARMERS

IN a short time we shall make the annual call for Master Farmer nominations. Pennsylvania Farmer readers and the public in general will be asked to send us the names of the farmers they consider most worthy of the title "Master Farmer" and all the honor it has come to imply. Nearly every section has farmers whose lives and achievements are a source of inspiration to those who know them well. The object of the Master Farmer movement is to find such persons and to extend their influence for good by letting more people know about them. There are many men of real Master Farmer calibre who have never been nominated, and there are others among the nominees of the last three years who missed an award simply because the number to be given was limited. No one can know the true qualifications of a candidate so well as his neighbors. That is why we depend on them to name the men to be considered by the judges. Candidates of former years will not be listed as nominees for the Master Farmer Awards of 1936 unless their names are sent in again this year. Blanks for making nominations will be published in an early issue.

THE PIGEON MYSTERY

FOR many years the disappearance of the wild pigeon has been an unsolved mystery. Some authorities thought that the great flocks which used to come to this region had been wiped out by disease. Others believed that they had merely changed their migration to some other part of the continent, but nobody could discover them. Now hundreds of thousands of genuine wild pigeons have appeared in California. Agricultural and game officials do not know how to handle them, for they are destroying grape buds and it is contrary to federal and state law to shoot them. Airplanes have been used to drive them away but without success. Feeding them grain, in order to save the buds, is now being tried. Thus far nobody has accounted for their disappearance or their reappearance.

WHAT AND HOW MUCH?

THE quantity of wheat held by the Grain Corporation is not stated. Various estimates are made, and no doubt some of them are too high. Whatever the quantity may be everybody knows that it must come to market sometime; also that as long as it exists it is more or less of a weight on the market, for nobody knows when or at what price the Corporation will sell. The larger the official stocks the greater their weight on the market, so exaggerated ideas about them are of necessity an influence contrary to the interests of producers. There is no reason why the Grain Corporation, which is a public agency, should not make public its transactions and every reason why it should do so. The public is entitled to the facts and their market influence and should have them. Recent wheat markets have been marked by rather wide fluctuations. The Grain Corporation is reported as buying on every break. Is it also selling on the bulges? The public is entitled to information about that too.

What is the Grain Corporation doing now much? is a question that should be asked until it is answered.

BUSINESS AND CONSUMPTION

THE Bureau of Agricultural Economics reports that consumption of meats is very little affected by decreased business activity and presents figures to prove it. The figures show, among other things, that the per capita disappearance of beef has decreased 2.8 per cent during the past winter while the per capita disappearance of lamb has increased 8.39 per cent. It seems to be that such figures prove, if they prove anything, that meat consumption is affected by business conditions. For they show an increasing consumption of the cheaper meats and a decreasing consumption of the dearer. The statistician may prove, by figures expressing supplies and disappearance, that total meat consumption changes little aside from the differences created by variation in production. A certain quantity of meat is produced and it is all used. But producers are interested little in mere volume of consumption. They are interested in volume and price together—the amount consumed at a good price, and the amount consumed at a low price. And they know that there is a vital difference in consumption between a period when business is good and labor is well employed, and a period when business is bad and millions of workers are idle.

If the learned author of the official bulletin which says that "meat consumption is little affected by decreased business activity" will come out to our mining and industrial districts and run a farm, a meat shop or a grocery store he will learn an impressive lesson about consumption and its relation to business activity and employment. A lesson that will be worth more to him and to the public than all the figures he can dig up about the volume of "disappearance" of meats, which everybody knows must be closely related to the volume of production at any time.

AN EARLY START

FEW farmers delay corn planting any later in the season than ground and weather conditions permit. But those who plant early have the best chance for a good crop, according to a survey of methods followed by 600 Ohio growers in the 100-bushel corn project. The group who produced 60 bushels per acre planted on May 20th as an average date for 10 years; those with an 80-bushel yield planted three days earlier, while the 100-bushel men got the seed in the ground on May 14th and the 120-bushel growers the day before. Corn planting time is more a matter of expediency than of predetermination, but it is well to bear in mind that the early Ohio birds got the biggest crops.

COMPULSORY GRADING

THE New York legislature is considering a compulsory potato grading law. Many large growers favor the proposal, but opposition is voiced on behalf of the small producers. It is feared that the latter, not equipped for grading, may be penalized in price when their crops reach the market labeled "Ungraded." The experience of eastern apple exporters with their "Unclassified" grade raises the question whether it is the use of such a label or the abuse of it that brings the price penalty. So many of the commercial apple shippers have dumped poor fruit on foreign markets under this euphonious label that Europe threatens to retaliate with an embargo. Meanwhile we recall that Idaho potato growers supply the high priced markets in our own territory. Their crops are graded by compulsion—not compulsion of law but of economic necessity.

Pennsylvania Farm Comment

By MILES HORST

New Story Next Week

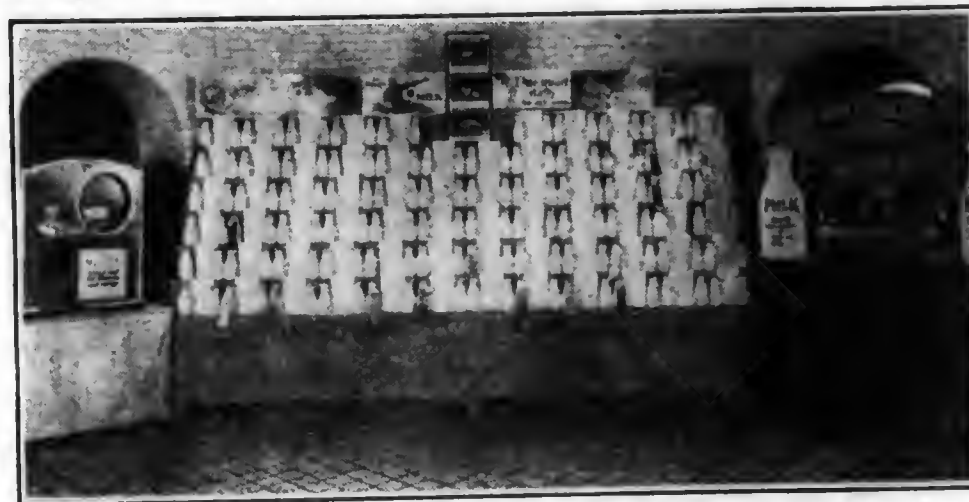
Subscribers who read "Uncle Dresser's Money" or "Molly's Baby," by C. A. Stephens, will be glad to learn that we shall start another story by this popular author next week. And any readers who are not acquainted with Mr. Stephens' stories have missed something which they will want to make up by reading the coming tale.

"MILLY WOODBRIDGE'S TREK TO THE PACIFIC"

The title of our new story, is an account of pioneering in the Peace River country of Canada. The hardships and pluck of these early settlers from New England will be found of absorbing interest, and we urge readers not to miss the opening chapter, which will be found in the issue of April 19th.

RECENT investigation into the size of potato bags preferred in the various large centers of our country by the Packers' Produce Mercantile Agency has revealed some interesting facts. For example, Baltimore is reported to prefer the 100-pound sack; Buffalo, N. Y., prefers the 150-pound sack. Harrisburg seems to be turning from a preference of 150-pound sacks to the 120-pound sacks. Newark, N. J., shows no particular preference, taking bags running from 90 to 100, 120 and 150 pounds at approximately the same price standard. In Philadelphia the 100-pound sack is undoubtedly the most popular package. Here the 150-pound sack now sells at a discount. The same thing is true in Pittsburgh.

Taking the small package such as the 15 or 30-pound package the demand in all of these centers for it is reported to be small. In Buffalo where three cars of 15-pound package potatoes were sold last season reports indicate that very few repeat orders for it were received. In Newark, on the other hand, the demand for the smaller consumer size package has increased noticeably during the past year and practically all of the potatoes received on this market from Idaho during the past year have been in this size package. In Philadelphia the 25 and 50-pound packages are being sold in a limited way to a special trade, but potatoes in these pack-



The above photo shows the exhibit of the Indiana County Milk Show, held last month. There were sixty-nine exhibitors. Forty-eight of the sixty-nine had bacterial counts of less than five thousand. Fourteen had counts of less than one thousand. The average total score was 94.3 for the sixty-nine exhibitors.

Five hundred farmers attended the Milk Show and other exhibits of dairy and barn equipment. The Show will have a large influence in promoting higher quality of milk in the county. John W. Warner, County Agent

ages cannot be moved in large quantities as yet in that city.

MANY requests come to this office in connection with school finances. Here is one asking for the maximum millage school districts in this state can levy.

Section 537 of the School Law of Pennsylvania states: "In school districts of the second class the millage shall not exceed 20 mills on the dollar, and in school districts of the third and fourth class shall not exceed 25 mills on the dollar, on the total amount of assessed valuation of all property taxable for school purposes therein: Provided, that each school district of the second, third and fourth class may also collect a per capita tax on each

resident or inhabitant of such district over 21 years of age."

LAST week I tested my seed corn, which was picked out last fall and stored away carefully for the winter. It showed a germination of 90 per cent. I tested corn selected from my cribs which showed a germination of but 72 per cent.

My findings in regard to my own corn are much in line with those of farmers in many of the corn growing sections of this state. Evidently if we want a good stand of corn this season we must use more than ordinary care in selecting seed.

THE Fat Cattle Show, to be held in the Lancaster Stockyards, June 18 and 19, will feature a better quality of cattle this year than it has in past shows. A committee of three commission men consisting of Walter W. Dunlap, John M. Hooper and Charles Lyons has been appointed as a special committee to weed out all undesirable cattle before they reach the exhibition pens.

HARRY SMITH, a 19-year-old club boy of Union county, and Herbert Enders, a 16-year-old boy of Montgomery county, will represent the Keystone State 4-H Clubs at the National gathering of 4-H Club representatives, to be held at Washington, D. C., June 18 to 24. Both of these boys have done outstanding club work in their communities and have proved themselves to be real leaders of young people.

WHEN all is done and told the women do most of the weeding in our farm gardens and most of it is done with the ordinary hoe which makes weeding slow and back-breaking. It is surprising how much easier it is to do the weeding with a wheel hoe with a man between the handles in a garden where the vegetables are planted in rows. It is still easier to do the weeding with a horse and a small cultivator when the garden is so arranged that the rows of vegetables run clear across, making horse cultivation possible. One man with a wheel hoe or a horse cultivator will do more weeding in one hour than a woman with a hoe can do in a half day and he will do it with much less energy.

ONLY half as many cases of hog cholera have been reported in Pennsylvania so far this year as during the corresponding period in 1929, and the number is far less than the average number of cases reported during the previous five years. The reason for this good showing in the control of this dreaded hog disease is the increased use of vaccine as a preventive measure and the regulation of the sale of hogs at public auction. More than 13,000 hogs in the state were vaccinated during January and February. The present law requires that unless the hogs are raised on the farm where sold they must be vaccinated 30 days before the date of auction.

BARLEY is gradually taking the place of oats in Northampton county. It is estimated that the barley acreage in that county will be increased from 20 to 25 per cent over that of last year.

When the proper varieties are planted, it will yield from 45 to 50 bushels per acre. In feeding value per bushel it ranks between oats and corn. It easily fits into the regular rotation now used in Northampton and other southeastern Pennsylvania counties.

During the past two weeks, 1,500 bushels of velvet barley seed was shipped into the county from Minnesota and distributed among many farms. It appears that this variety according to variety demonstrations conducted in the county last season was one of the best yielding varieties in the test. Two other varieties that yielded well in these tests were Wisconsin Pedigreed and Featherstone.

JESSE INSCHO was elected president of the Tioga County Agricultural Extension Association at its annual meeting held at Wellsboro last week. Frank Bley was elected vice-president; James S. Blair, secretary; and A. D. Prutsman, treasurer.

Forty-four dairymen of the county whose herds last year averaged 300 lbs. or more of butterfat per cow were awarded ribbons.

In his survey of plans for 1936 County Agent Korb stressed farm accounting. Two large groups of farmers in the county are participating in this project. Dairymen, including dairy calf clubs, will be another major project.

The addresses of the day were made by H. G. Niesley and W. R. Gordon, extension specialists.



Penshurst White Fico, a Potter county bull association bull owned by the first cooperative Ayrshire bull association of America. This association was organized in Potter county.

POTTER, near the center of the north tier of Pennsylvania counties, has in recent years been the scene of interesting agricultural developments. One of the last strongholds in the Keystone State of the large lumber mills, tanneries and acid factories, Potter county slumped when these industries exhausted their supplies of raw materials and departed. Farming was then a side issue, but it suddenly became almost the sole support of the county's economic life. Under the leadership of an able county agent agriculture rose to the occasion.

The extent of the county's recent rural development is set forth in the last annual report of the county agent to the Potter County Agricultural Extension Association. Before quoting part of this report the following statistics may be cited to answer the question, "What does a county agent do with his time?"

In conducting the Agricultural Extension Service in Potter county last year County Agent Bert Straw traveled 19,800 miles by car, made 1,801 visits to 1,300 different farms, took care of 1,198 office calls and 3,315 telephone calls, spent 61 days in office and 239 days in field activity, wrote 2,100 individual letters, held 94 method demonstrations, conducted 189 definite result demonstrations, held 331 meetings with 4,972 in attendance, and distributed 583 bulletins.

The annual meeting of the Potter County Agricultural Extension Association for the year 1929 was held in the Coudersport Scottish Rite Consistory Building. About 700 farmers and townspeople attended. Giving his annual report at this meeting County Agent Straw said, in part:

A Market Opportunity

"We are gathered here to concern ourselves with the economic welfare and economic possibilities of our county and each of our communities. When we met here on a similar occasion two years ago I endeavored to make clear to you the fact that because of her certain peculiar conditions Potter county had a very potent opportunity in the social and economic organization of this country, that we are in the very heart of the greatest consuming center of the whole country, and, that the entire production of the farm commodities that are normally produced in Potter county do not supply the annual increase in the demand for such commodities in the Pennsylvania markets.

"On this former occasion it was explained that

Potter County Agriculture Rises to the Occasion

those farmers who had followed the improved practices of potato production had increased their average yield more than 100 per cent. Since that time we have had an increase of 30 per cent in the number of potato growers using these methods. I told you that during the eight years of potato spraying work in Potter county the actual measured increase in yield due to spraying sold at the average market price for those eight years showed a net amount of nearly \$4,000,000. The past two years have added over \$800,000 to that figure. The records at that time showed a 60 per cent increase in yield due to the use of good disease-free seed potatoes. During the past two years there has been a 75 per cent increase in the number of growers using disease-free seed.

The Dairy Business

"Two years ago you were told that the production record keeping system of our cow-testing association work had increased the average annual milk production per cow 1,100 pounds in three years. It took just seven times that long to increase the average production of all the cows in the New York milk shed 1,100 pounds. During the past two years we have had an increase of 200 per cent in the number of dairymen keeping such records.

"It was explained at that time that the producing ability of the next generation of cows in any dairyman's herd will increase only if he uses sires from cows with a known high production record. During the past two years we have assisted in the placing of 45 such bulls among the dairy herds of the county.

"It is a well-known fact that the greatest possible production can only be arrived at through the feeding of well-bred stock. You were told that demonstrated methods had proved that the calf club was the best medium for establishing new pure-bred herds. We now have more than 100 boys and girls in the county who are anxious to own a calf and whom the banks of the county are willing to finance. It has been impossible to purchase that number of calves from cows with proven high production ability. This fall's crop of calves has made available approximately thirty suitable calves within the county. These will be distributed as soon as they are old enough to move.

"The Galeton Ayrshire Calf Club has finished one year's production. The market value of the first year's total production of the cows in that club amounted to more than the feed cost for the year and the original cost of the calves.

"There has been an immense amount of talking and publicity about legislative or government assistance for agriculture. The solution to the farmer's problem rests with himself. His yield or production per given unit, whatever the operation

may be, must be sufficiently large to return more on the market than the total cost of production. The farmers of Potter county have eliminated many antiquated and expensive production methods. More must go.

"In order to prove and point out the weak spots in the production system, we have interested a large number of farmers in keeping cost of production records. More than 100 cost of production records on potatoes will be summarized in Potter county this year. Eighty-five cost of milk production records are being kept. Two groups of poultrymen are keeping cost accounts on their flocks.

"We must know the cost of production, then make our yield large enough to return at the average market price more than those production costs. What the farming industry in Potter county needs now is a stronger sentiment for cow-testing association records and other cost accounting. These practices will eliminate inefficiency, lower costs, and increase the possibility for a profit.

"During the past ten years the number of producing dairy cows in Potter county has increased from less than 8,000 to over 16,000. The average milk production per cow has increased from 3,200 pounds per cow to over 5,000 pounds per cow. The price of milk has increased from less than \$1.50 per hundred pounds to over \$2.50 per hundred pounds.

Progress with Potatoes

"During the past ten years the acreage of potatoes in Potter county has increased from a little over 3,000 to more than 8,000 acres. The average yield per acre has more than doubled during the past ten years. The total annual production of potatoes in Potter county has increased from less than 400,000 bushels to about 2,000,000 bushels.

"In 1929 Potter county kept more than five times as many laying hens as she had in 1916. The average egg production per hen is now more than twice the production of ten years ago.

"On January 1, 1917, the total bank deposits in all the banks in Potter county amounted to \$2,649,744.65. On January 1, 1929, the total bank deposits of all the banks in Potter county amounted to \$4,264,515.47.

"This increase of \$1,614,773.12 in bank deposits has taken place in Potter county in spite of the fact that the industrial payroll of the county has been reduced more than two-thirds. The railroad payroll has diminished practically one-half. Four large sawmills have been removed from the county during that period. Three tanneries have ceased operations and one wood chemical plant has been dismantled. Two large glass factories and a large number of smaller industries have vanished.

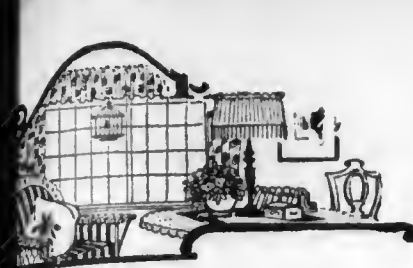
"The farmers of this county (Cont'd on page 23.)

1. Potatoes have come to play an important part in Potter county farming.

2. Many up-to-date dairy barns have been built or remodeled during the past fifteen years.



3. The farm barn of twenty-five years ago is rapidly fading from the Potter county landscape.



An Orphan Room

By MARION COSSITT BRACKIN

had a little orphan room, and it was bleak and bare; whenever I went into that room it filled me with despair. I took that room in hand one day, and now I'm glad to say that all the folks who go in there just love to stay and stay.

THIS room was my "store room," and it looked like a cupboard. An unfinished floor, white plaster walls, a couple of store boxes, a glaring light from the center of the room. But the possibilities of this room intrigued me, its pleasant view from the two windows, its cozy size, hinted to me what a jolly little den it might become, with a little work on my part, and a little, oh, a very little expense.

So we tinted the walls and ceiling a deep pretty cream color. Then it didn't take long to stain and varnish the floor, and lay a couple of pretty braided wool rugs. One store box was removed from the room and the other was covered with a gay but heavy cretonne in a hand-blocked effect, even though it had been bought at a bargain and cost very little.

A small family antique table which had previously refinished, stands in the corner of the room, with a handy desk light on it. As the table is just the right height for comfortable writing, and has a drawer, it makes a fine little desk. A low dresser with a long mirror was taken from another room and placed in the little den. A bed-light hooked over the top of the mirror gave a subdued but efficient light.

We put some of our most dearly loved books in here, a couple of the fiber porch chairs, newly varnished, and another very inexpensive but charmingly antique looking bridge lamp near the rocker. The curtains are made of rayon casement cloth, straight and very easily laundered. And, do you know, the room is transformed!

We love to read here, write here, chat here. It is one of the most homelike and cheery little rooms in the house. And we enjoy it the more because we achieved it by a little adventure in decorating.

All Aboard!

HAVE we some readers who might be interested in going overseas to attend the Conference of Rural Women of the World? The meeting is to be held in Vienna, Austria on May 27th, 28th, 29th and 30th, and the party will be chaperoned by Mrs. A. E. Bridgen of New York. She is the official delegate from the United States.

Before and after the meeting the United States group will visit in France, Germany, Hungary, England, Holland and Czechoslovakia to study the work of country women in those countries. This group will sail from New York on May 2 and return to the same port July 6.

It seems to me this is a wonderful opportunity for rural women's organizations to send delegates to such a distinguished gathering that will provide untold inspiration. Membership is open to either men or women. Reservations can be made through Mrs. A. E. Bridgen, 121 Westminster St., Rochester, New York.

Granges, Farm Societies, Farm Bureaus, Women's Clubs, Parent-Teachers Associations everywhere, think this over, and act at once before all reservations are closed. Readers who attend, please write us of your plans. G. S. S.

Wax Reduces Dusting

RECENT scientific tests made by a well-known Wisconsin concern, for forty years interior finishing authorities, show that fifty per cent less dust settles on waxed furniture than on surfaces finished with ordinary polish. Dust that remains on the wax stays on top, does not become imbedded, and is easily whisked off.

The wax film dries absolutely hard and soft,

The

Farm Home



sealing dust pockets, and also provides a protection against all kinds of scratches and stains on chairs, tables and woodwork.

Prize Cake Recipes

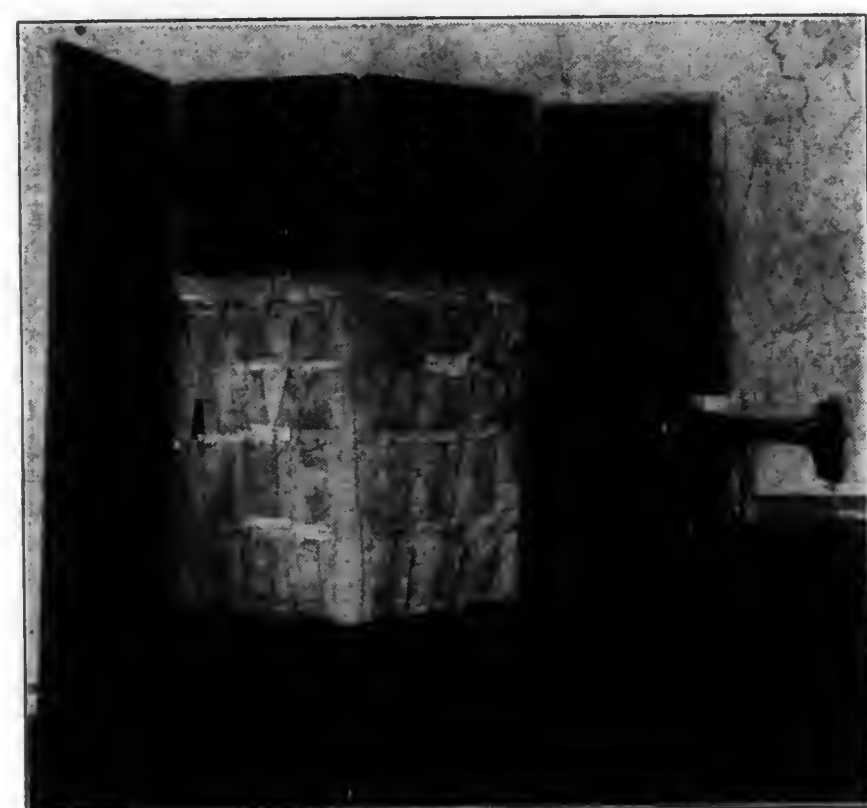
A MODEST reader who did not sign her name may have the checkerboard cake pans for this week's prize if she will write us and send her complete name and address.

She writes that these are goodies which always make her family smile. She has five happy children.

Upside Down Peach Cake

One egg, one cup flour, one-half cup hot milk, one-half cup sugar, one and one-half teaspoons baking powder, pinch of salt. Also one cup brown sugar, one-fourth cup shortening, three cups sliced peaches.

Method: Melt the brown sugar in a skillet with the shortening. Then add the (canned) sliced peaches. With the other ingredients make a batter



POCKETS FOR PATTERNS

A FOLDING screen is often part of the sewing equipment. It may be used either to cut off the view of disorder if the work must be hurriedly stopped, or for protection during fitting. It often serves as a place on which to pin up partly finished work, and various ways have been devised of making such a screen hold small sewing accessories. When not wanted the screen is folded up and put away.

One use of this kind is shown in the picture, taken by the Bureau of Home Economics of the U. S. Department of Agriculture. Pockets similar to show bags were made on a width of material as large as two panels of the screen. Osnaburg, a durable and inexpensive household cotton fabric, which has become widely known, was used for the 30 pleated pockets hung on the screen. Patterns and findings are then stored in a very handy way within reach of the person working at the sewing machine.

as for any cake. Pour this batter on top of the skillet mixture and bake. This cake is good served either hot or cold with cream.

Note: As with all skillet upside down cakes, be very careful in removing them from pan. Turn them so that the nice fruity caramel mixture is on top, and serve them at the table as you would a strawberry shortcake.

Apple Cake

Two cups flour, three teaspoons baking powder, one-half teaspoons salt, two tablespoons shortening, one-half cup milk, sliced cooking apples, one-half cup sugar, one teaspoon cinnamon.

Combine the first five ingredients as you make biscuit dough, and press into pan about one inch thick. Cover with apples, sugar and cinnamon. Bake until apples are tender and nicely browned. Served with top milk.

Winner, please send us your name. Address the Baking Contest editor, Pennsylvania Farmer, 7301 Penn Ave., Pittsburgh, Pa.

Preserve Bird Life

By HEPSY NEFF

"WITHIN 25 years after the last birds have been killed the last man will drop into his unburied grave, according to Lieut. Col. C. Seymour Bullock, national field representative of the Izaak Walton League of America, in Science Service. No man can live in a bird-less world, says Col. Bullock, for without birds there can be no grain and no grain means no food for man."

The above statement will be challenged by nine out of every ten persons who read it. But farm dwellers everywhere know that our bird friends are decreasing and are equally sure that our insect enemies are increasing. One need not be too distressingly old to remember a time when the eaves of our barns were fringed with the mud nests of swift-winged barn swallows spending their days catching the low-flying moths that supply something like thousands of eggs apiece that hatch more insect pests. At that time we gathered perfect apples from orchards that had never known a touch of spray. Will our children ever know such an experience?

Standing at the head of dependable and helpful information ready for use in our effort to encourage an increase in our bird friends is our Department of Agriculture with more than a dozen free bulletins about birds and their relation to the farmer. Next to these helps is the National Association of Audubon Societies with headquarters in New York City and a postal card so addressed will reach them.

A few years ago a big hotel in the Far South had a visit from purple martins and to rid the neighborhood of the annoyance the unthinking proprietor invited his neighbors to help themselves to the feast. The Audubon Society heard of it and sent a representative down there who was able to prevent further slaughter by firing empty tar-barrels in the evening and the smoke drove the birds away. Estimates of the number of birds killed went above 10,000 and the offending citizens were prosecuted and fined in the local court.

Plainly the time has not yet come when the friends of either birds or men can afford to keep silent.

What Are You Doing?

WHAT is your community or your club doing to make May Day 1930 Child Health Day? "Every Parent and Every Community United for Health for Every Child"—this is the slogan for our activities.

Pageants and plays, parades with floats symbolizing health, window displays, school festivals, church celebrations, radio programs, May Day festivals, outdoor health games and plays—these and many other suggestions may give you some idea what

might be done to arouse your own community to better health for every child.

If you need help of any sort, write at once to the American Child Health Association, 370 Seventh Ave., New York City.

Timely Tips

DO the children's appetites lag? Perhaps they are bored with the same things over and over again. Try new cream soups, a change in puddings and custards, and variations in your menus.

"Scottish Fancies" are wholesome and the children like them. Here is the recipe: One egg, one-half cup sugar, two-thirds tablespoon melted butter, one cup rolled oats, one-third teaspoon salt, one-fourth teaspoon vanilla. Beat egg well, add sugar gradually, then remaining ingredients. Drop by teaspoonfuls on a greased pan. Bake in a moderate oven till they are delicate brown.

Why Do I Plant a Garden?

"WHY do you bother to plant a garden, when you are just one person living alone?" asked a visitor, one day. "You could buy the small amounts of fresh vegetables, in the neighborhood, with much less trouble."

This is what I told her: I came from the city and bought a small country home in the hills. Much of my younger life had been spent in a town where back yards were of good size for gardening, and to me, a home could not be real if it lacked garden space.

Taking possession in early June, the only available space for vegetables or flowers was a patch 50x50, beside the house, open to the road. It had been cleared and fertilized the previous fall. Around my new home were perhaps a dozen houses, scattered along the valley within a radius of a quarter of a mile. My neighbors passed often, lingering to see and be amused by the ways of the "city woman" in planting and cultivating.

Planted Flowers, Too

They saw, and from them I learned more than they realized; and having good seed catalogues and other garden literature, I "put over" my first-year garden in professional style, having an abundance of good vegetables for myself and occasional guests, with a few to give away. I edged the patch with some quick-growing annuals, and had many flowers. When not busy with serious garden work, and getting settled indoors, I attacked the tall weeds in another 50x50 patch behind the barn. This plot my predecessor had used for corn and potatoes and the ground was well plowed up and fertilized in the fall.

The next spring, I planned and achieved a regular vegetable garden in that rear lot. The front garden, by degrees, was laid out for flowers, with both perennials and annuals, shrubs as I could afford them, and across the back of it, as background for flaming Oriental poppies, my asparagus bed. Each year thereafter brought improvements—and experience.

Two Crops

In beginner's fashion, I planted seed generously, with a view to putting up my surplus for winter use; but by the middle of that second summer I was being besieged by the "summer people," who owned or rented places near mine, to let them have anything I could spare, at village-grocery prices. There was actual competition for my young carrots, beans, tomatoes, sweet corn,—everything! Even the farmers' wives bought for their boarders, as I put in seed for successive crops, wherever I had a bit of space. The local fashion was to plant once, and let it go at that; wherefore the demand was far larger than I could fill—and continued so.

The extra pin-money from vegetables, flowers and seedlings, more than covered garden expenses, and the value and attractiveness of the property increased yearly.

"Why bother to plant a garden?" "Well, who wouldn't? I found it as good exercise for my brain as for muscles."

It gave me better food, at far less cost than if I had bought it.

It gave me better health than I had had for years. I was then in the late forties, and am now in the healthiest of fifties. Since my gardening began, I've had no doctor's bills, other than for dentist work. And my glowing hope is that at ninety I shall still be gardening. I know nothing more fascinating.

Aldis Dunbar.

Spring Cleaning Toboo

MODERN housekeepers have discarded the old institution of spring cleaning, according to the New York state college of home economics at Cornell University.

The yearly or semi-yearly event when the whole house as well as its

occupants were upset is now being replaced by systematic cleaning which continues the year around. If floors and rugs are cleaned regularly each week or two, furniture and woodwork dusted, walls brushed lightly with a covered broom, and windows and mirrors polished or washed frequently, there will be little opportunity for much dust to collect during the year.

Certain jobs, however, will always fall in the spring. Furs, winter clothing, and blankets must be cleaned and stored, awnings, screens and slip covers for furniture must be taken out and put in good order for the summer, and fireplaces and furnaces should be cleaned of their accumulation of ashes, dust and soot and put in order for fall.

A Good Baked Dessert

Bananas and Rhubarb

THIS recipe is from the Bureau of Home Economics of the U. S. Department of Agriculture:

One quart rhubarb cut in two-inch pieces, three bananas, two tablespoons butter, one-half cup sugar, one-fourth teaspoon salt.

Select tender rhubarb, wash well and cut in two-inch pieces without removing the red skin. Peel and scrape the bananas and split them lengthwise. Grease a shallow baking dish, cover it with a layer of the cut rhubarb, lay the banana halves over the rhubarb, and add the remaining rhubarb. Sprinkle the salt and sugar over the fruit and dot with the butter. Cover and bake in a moderate oven for 15 minutes, or until the fruit is tender. Uncover and continue to cook for one-half hour, or until the syrup has thickened. Serve hot or cold.

Bedroom Comfort

THE bedroom should be arranged for comfort and convenience. Yet many an attractive and luxuriously furnished room lacks those small items that insure comfort and require thought rather than expense. Many a homemaker feels satisfied

when she has provided a good lamp and forgets those smaller features that also spell comfort.

Proper placing of lights is important. A lamp placed at the foot of the bed, preferably at the left, and another beside an easy chair or desk, make a far more comfortable room than the single glaring central light, so often used, which shines directly into the eyes of anyone in bed and gives poor light at dressing tables, desks and other centers requiring concentrated light.

Hanging the mirror conveniently also worth while. Place it so that the light falls on the person in the mirror instead of on the glass itself. A good position is between windows and wall-bracket lights.

Other details which make for room convenience are scrap baskets, clothes closets well equipped with hangers, hat stands and shelves for hats and shoes. In the guest room a towel rack on the door, a folding stool to hold suitcases and a writing table or desk with pens, ink, paper and envelopes are appreciated by visitors.

Diversity, Comfort and Charm in Frocks



No. 6804.—Ladies' apron frock. Cut in four sizes: Small, 34-36; medium, 36-38; large, 42-44; extra large, 46-48 inches bust measure. A medium size requires 3 1/2 yards of material 32 inches wide. For contrasting material 1 1/2 yard 32 inches wide and crosswise is required. Price 15c or two for 25c.

No. 6797.—Ladies' dress. Cut in four sizes: Small, 34-36; medium, 36-38; large, 42-44; extra large, 46-48 inches bust measure. A medium size requires 4 1/2 yards of 38-inch material. For contrasting material 1 1/2 yard 32 inches wide and crosswise is required. Price 15c or two for 25c.

No. 6795.—Ladies' dress with slender hips. Cut in eight sizes: 38, 40, 42, 44, 46, 48, 50 and 52 inches bust measure. A medium size requires 4 1/2 yards of 38-inch material. To line the bodice requires 1 1/2 yard 18 inches wide, cut crosswise. Price 15c or two for 25c.

No. 6598.—Ladies' smock. Cut in four sizes: Small, 34-36; medium, 36-38; large, 42-44; extra large, 46-48 inches bust measure. A medium size of one material requires four yards and cuts of contrasting material 1/2 yard 36 inches wide is required cut crosswise. Price 15c or two for 25c.

No. 6480.—Girls' dress. Cut in five sizes: 1, 2, 3, 4 and 5 years. A 3-year size requires 1 1/2 yards of material 32 inches wide or wider. To trim bertha edges with plaid will require 1 1/2 yards. To make collar of contrasting material requires 1-3 yard 38 inches wide, cut crosswise. Price 15c or two for 25c.

No. 6807.—Ladies' slip. Cut in four sizes: Small, 34-36; medium, 36-38; large, 42-44; extra large, 46-48 inches bust measure. A medium size requires 2 1/2 yards of 38-inch material. To finish the lower edge with lace requires 2 1/2 yards. To finish with bias binding requires 2 1/2 yards 1 1/2 inches wide. Price 15c or two for 25c.

No. 6281.—Ladies' under garment. Cut in four sizes: Small, 34-36; medium, 36-38; large, 42-44; extra large, 46-48 inches bust measure. A medium size requires 1/2 yard of all over lace for the bodice, neck and the leg bands and 1 1/2 yards of other material 32 inches wide for the body portions. The shoulder straps will require one yard of ribbon. Price 15c or two for 25c.

No. 6819.—Girls' dress. Cut in four sizes: 2, 4, 6 and 8 years. A 6-year size requires 1 1/2 yards of 32-inch material. For contrasting material 1-3 yard will be required cut crosswise. To finish with bias binding requires 2 1/2 yards 1 1/2 inches wide. Price 15c or two for 25c.

No. 6820.—Ladies' blouse. Cut in six sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. A 38-inch size requires 2 1/2 yards of material 38 inches wide. For facing of contrasting material 1-6 of a yard 27 inches wide is required cut crosswise. Price 15c or two for 25c.

No. 6806.—Ladies' apron. Cut in four sizes: Small, 34-36; medium, 36-38; large, 42-44; extra large, 46-48 inches bust measure. A medium size requires 2 1/2 yards of 36-inch material. To finish with bias binding requires 2 1/2 yards 1 1/2 inches wide. Price 15c or two for 25c.

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Storage Space

THERE is a woman living who is paid one hundred and fifty dollars every time she plans a closet! Her clients are glad to pay her, too, for she plans a closet so convenient, attractive and efficient that the household affairs revolve more smoothly and systematically because of it. Nowadays architects build closets that are long and shallow, thereby cutting less space from the room and also making possible the use of a longer rod or pole from which clothes are hung. Clothing in such a closet is more readily accessible.

These long, narrow closets may be fitted with four double doors, particularly the wrap closet on the main floor of a large family house. Adjustable or fitted shelves may be placed at one end.

But perhaps you and I are bequeathed with square closets of the past generation, boasting plenty of waste space and dark corners. At first thought, the modern trend in closets seems to mean nothing of us, yet if we stop to consider, we will find some valuable points we can apply to our own state of affairs.

We have had to make over closets after closet, usually, square, and it has been our experience that there is nearly always ample space for shelves at one side and a pole across the other end or through the center. If the closet is small, the pole may be placed diagonally across a corner leaving space at the opposite end for shelves. The rod, incidentally, may be a broomstick or a pipe, painted to match the woodwork. In adult closets, it should be placed high enough to allow the longest garments (and, very likely, the handy mothproof clothes container many of us possess) to swing clear of the floor.

Adjustable Pole

Any housekeeper longs for shelves in the closet on which to put shoes, rubbers and the what-nots that clutter the floor and impede progress on cleaning day. Shelves may be adjustable. Indeed, our storage space may even take the ambitious form of a cupboard at one end of the closet with several large drawers on rollers at the lower half, and smaller drawers above and perhaps a square cupboard at the very top to hold handboxes.

Large drawers of this type are remarkably convenient in men's and boys' rooms for such odd equipment as guns, large games, hip boots, baseball bats, tennis rackets, and many other articles of awkward size which at certain seasons have to be stored somewhere.

Children's closets bear special mention. We find we save ourselves work by providing each child's closet with low hooks, a low pole and a low shelf for shoes and rubbers. To be sure, these may be adjustable and later moved to accommodate the changing reach of the youngsters. A ten-cent towel rack on the back of the closet door is a first-class necktie holder.

Last of all, let us have the closet light if we ourselves must paper or calcimine or paint it a light, harmonizing color this spring. We might add a boldly decorative touch by painting the shelves a bright contrasting tone. A small window or an electric light with convenient switch are desirable when we can arrange for them. Floris Culver Thompson.

Fashion Book Notice

SEND ten cents in silver or stamps for our up-to-date spring and summer 1930 book of fashions, showing color plates, and containing 500 designs of ladies', misses' and children's patterns, a concise and comprehensive article on dressmaking, also some points for the needle (illustrating 30 of the various, simple stitches) all valuable hints to the home dressmaker.

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Baby chicks eat eagerly of this oatmeal ration which builds better blood, strong, capable organs, sound flesh and broad, deep bodies which denote the heavy consistent layer. After six weeks of this splendid growth-promoting diet, your chicks are ready for Ful-O-Pep Growing Mash. Remember that Quaker Ful-O-Pep Fine Chick Feed should be fed in conjunction with the Starter.

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Brooding Chicks by Electricity

By H. C. KNANDEL

IN probably no other agricultural industry have methods of management changed so completely in the last twenty-five years as in poultry keeping. Think back, if you will, a quarter of a century. How many baby chicks were shipped by express or parcel post? The mammoth incubator as it is today was unknown. The colony brooder stove was heated by coal oil and was of poor construction. Battery brooders were practically unknown. Electricity for lighting purposes was considered a luxury even in homes. Now the poultryman incubates and tests his eggs, broods and lights his chicks, maintains high fall and winter egg production, keeps the water from freezing in the laying houses, grinds and mixes his feed all by electricity.

It required years of experimental work on the part of manufacturers to develop an incubator which could be satisfactorily operated by electricity. Now they have it. In recent years, attention has been directed toward the manufacture of electric brooders which will produce results the equal, or better, of coal and oil burning brooders. There are, on the market, two general types—the colony and the battery electric brooder.

One reason why electric brooding of chicks has been held in check is because of the unreliability of electric service in some communities. Chicks require heat during a snow or electrical storm when the current may be interrupted. The poultryman has felt in the past that he could not take the chance of having his chicks chilled.

Ventilation

Another factor in the successful brooding of chicks, and one to which the manufacturers of electric brooders have been compelled to devote study, is that of ventilation. Fresh air must pass through the brooder to meet the requirements of the growing chicks and yet if the cost of electricity is to be kept down an excessive amount of air must be avoided.

In the East the colony electric brooder has not made the progress which has been reported on the Pacific Coast. On the other hand, the battery brooder is used to a considerable extent from coast to coast, but most battery brooders are best operated in a room in which auxiliary heat is installed. Perhaps the colony electric brooder will do well under such conditions.

In a study of electric incubation and brooding by the State College of Washington and a committee on the Relation of Electricity to Agriculture in that state cooperating, some very definite results were obtained applicable to Pacific Coast conditions. Various types of colony electric brooders were used. The following records were recorded: mortality, amount of electricity consumed, cost of electricity per chick for 42 days and the average temperature. Their conclusions are most interesting.

Conclusions

It was observed: (1) That for the successful operation of electric brooders it was necessary to have a reliable source of electric current which was not subject to frequent or long interruptions. (2) An electric brooder should be used only in houses properly insulated and well constructed in order to conserve the heat. (3) Electric brooders with curtains were most economical to operate. (4) As a means of providing proper ventilation it was suggested to place the brooder on a half-inch mesh hardware cloth frame raised two to four inches off the floor. This permitted a constant circulation of air and kept the floor clean, dry and sanitary. (5) The electric brooders maintained an even tem-

perature throughout and required a minimum amount of attention. Unquestionably, the electric brooder will find a place in the field of poultry husbandry. What is needed now is for the manufacturers to get the poultryman's viewpoint, and the two work together. The brooding of early hatched chicks in February, March and April by the electric colony brooder stove with no auxiliary heat is still in the experimental stage. New improvements are constantly to be noted and eventually the poultryman will be able to brood chicks successfully during any part of the year with electricity.

Glass Substitutes

DURING the past seven years many experiment stations have been exposing glass substitutes to very rigid tests. These studies have been made from the two-fold standpoint of actual value in poultry raising and correct installation for years of service.

The tests have proved that these window materials have a very beneficial effect on growth; in preventing leg weakness in baby chicks; on hatchability; increasing egg production and health in the laying flocks. The reason for these beneficial results is found in the fact that reliable glass substitutes let through the ultra-violet rays of sunlight which glass and many other materials keep out.

In their studies, the experiment stations have found that glass substitutes give years of service when proper installations are made. They have also found that these materials, which render such valuable service through the winter weather, wear out if needlessly exposed to summer weather when glass substitutes are not needed.

In bulletins issued by these stations recommendations are made that where the glass substitutes are made in a wire mesh base they should be tacked to frames so hinged that they are always in a vertical position. These frames should be hinged to swing in and to the side, or up under the roof, or they should slide down into a box arrangement in front of or back of the openings. Excellent ventilating conditions are thus provided, and at the same time the glass substitutes are given adequate protection when not in use. Poultry keepers who cannot follow these suggestions should remove the frames during the summer months and store them under cover. G. H.

Gapes

Will you please give me some information on what to do for chickens with the gapes?

I had about one hundred Plymouth Rocks die this way and I would certainly appreciate some advice on what to do for them. B. F. B.

GAPES are caused by a small parasite. This condition was considered of great economic importance a few years ago, but in recent years gapes have not been so serious.

Raising chicks on ground over which fowls have had no access for two or three years has done much to discourage the ravages of these parasites. My suggestion would be to move the house in which your chicks are being brooded to clean range. Lime and harrow the soil well and frequently during the brooding season and move the brooder houses so that the chicks will not be compelled to roam over contaminated ground.

Keeping the chicks indoors for the first six to eight weeks is another sensible way of preventing gape world infestations. By the use of cod-liver oil at the rate of one pound in a hundred pounds of mash, chicks can be successfully raised indoors. H. C. K.

Blood Spots in Eggs

I have some Rhode Island Red hens which are laying well and are in good health, but are in some kind of a neck molt. What causes this and what could be done for it? What causes blood spots in eggs? John P. Reaser.

It is common at this time of the year to notice some individual fowls showing signs of a neck molt. This condition is brought about because of heavy winter egg production or because of a change in management.

Many times when artificial illumination is used during the winter months the farmer is liable to turn the lights off suddenly with the coming of spring. This causes a considerable difference in the number of hours of daylight available to the fowls. A neck molt at this season of the year is not considered serious, since this is the time when fowls usually lay heavily and it is to be reasonably supposed that the birds will soon return to production. Should they not, they should be sold as poultry meat.

Blood spots are the result of a ruptured blood vessel. The little sac which holds the normal egg yolk has what is commonly known as a suture line on which the sac should rupture to emit the egg yolk. If for any reason the sac breaks in another place than along this particular line, a blood vessel is ruptured causing, of course, the blood to collect on the yolk of the egg.

Fowls in heavy production more often produce eggs containing blood spots than those fowls not laying so heavily. There is nothing which you can do for the situation other than to reduce the amount of animal protein in the ration thus retarding egg production. It will, of course, pay you to candle all eggs in order to eliminate those containing blood spots. H. C. K.

Egg Preservative

I am a regular reader of your paper and I wonder if you can advise me where I can get information how to stock up and keep eggs from now till August. Abraham Rubinstein.

THE following method of preserving eggs in water glass has been used with generally good results:

The water-glass preservative is prepared as follows: Mix one and one-half quarts of commercial water glass with 18 quarts of pure water, preferably water that has been boiled. Stir the mixture until the ingredients are thoroughly mixed.

An earthen jar is the most suitable vessel for the mixture, although a light odorless tub may be satisfactory. Two eight-gallon jars are sufficient for 30 dozen eggs using the quantity of solution given above.

After the water-glass solution is thoroughly mixed, pour it into the vessels to be used, being sure that the vessels are absolutely clean. If more water is needed in order to cover the eggs, this may be safely added to the amount of five quarts of additional water to each one and one-half quarts of the original commercial water-glass solution used. H. C. K.

Screen Floor

Can you give me an idea or plan how to put a screen floor in a brooder house? My house is 10x12. A. E. Opeit.

BROODER houses may be equipped with screen floors and it appears that the most satisfactory method of installation consists of placing a heavy grade of hardware cloth on frames. The frames are made of one-by-six inch material two feet wide and four feet long. These frames can be easily removed. It is a good plan to bevel the tops of the boards where the wire is attached so that the droppings cannot collect.

A very successful poultryman in New York state has used wire floors in his brooder houses with very good results. Last year he raised more than 3,000 pullets by this method. H. C. K.

How do you select the mash for your chicks?

FROM the list of feeds available you will choose one feed to rear your chicks. How do you choose it? How do you check its comparative value? There is one feed which you can check easily and accurately—Amco Starting and Growing Mash.

1. The formula is open—a tag on each bag tells what's in it and how much.
2. It has been proved in practice. The words of experience quoted here were unsolicited and are typical of the results secured by Amco feeders. The record of this feed in Pennsylvania has been one of constantly increasing sales.
3. Chicks like this feed, and how they grow on it! The rapid growth and low mortality secured with Amco Starting and Growing Mash makes the rearing cost low.
4. It is a complete ration for young chicks—feed it as an all-mash for the first six weeks and save time and labor.
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6. It is freshly mixed from the best ingredients and is available with or without cod liver oil mixed in.

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I also run my entire farm on Amco Feeds.

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Dear Sirs:

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As for Amco Poultry Feeds, will say they are the best feeds I have ever fed, and can highly recommend them to all poultrymen.

J. WILLIS GASTON & SON
East Liverpool, Ohio

"Could not get enough of them"

Gentlemen:

I raised 4,000 chicks on Amco Starting and Growing Mash last spring and had the best growth on these chicks that I have had from any mash I have ever used. The cockerels at 8 weeks and 4 days old weighed 13/4 pounds each. The man who bought them could not get enough of them, as his customers liked the plump breasts and wanted more. The pullets at 14 weeks of age were extra well developed. At 4 months and 11 days they were well feathered and heavy, and began laying.

I have recommended this mash to many of my neighbors and all who have tried it are well satisfied.

WALTER H. SNYDER
Douglassville, Pa.

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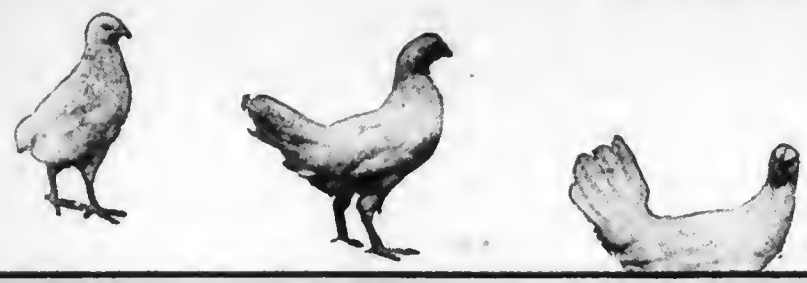
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Experience with Electric Brooders

By R. L. SCHARRING-HAUSEN

WITH the increasing use of electricity in rural districts, the question of using electric brooders has come before poultrymen, who wonder if the ease of handling such brooders does not outweigh the disadvantages which they possess and so I want to discuss the subject from both sides.

Among the good points of electric brooders are the ease of management, as all carrying of coal and ashes is done away with, regulation is easy, temperature control is automatic, and once they are properly adjusted, very little attention need be given them.

Among the bad points, it is known that current furnishes a rather expensive source of heat, and where service is not reliable or is interrupted by bad storms, the poultryman who depends on electric brooders is out of luck and may suffer disastrous losses.

The largest electric equipment I have ever seen gave a capacity of 25,000 chicks. Canopy type brooders were used in a long house, which was also heated by a hot water central heating system; automatic water fountains were in each pen, and a feed and litter carrier was provided. The owner stated that he had had no trouble, and that one good man could take all care of the 25,000 chicks with the exception of cleaning.

Favorable Conditions

This farm obtained current at a very cheap rate, the climate was mild, and the auxiliary heating system gave some measure of protection in case of power interruption; and the owner stated that his plant was satisfactory in every way, as to cost of operation, saving of labor and reliability.

I also know of a plant in the South using electric hovers in colony houses where good results were had. Here the climate was mild, and the current was off during the greater part of the day, coming on when the evening grew chilly, and under these circumstances the system was both satisfactory and economical. On the other hand, I learned of a poultryman using electric brooders in colony houses without other heat in a severe climate, where service was interrupted for two weeks by a heavy sleet and snow storm which broke down the poles, who lost all his chicks. Of course such a disaster would be unusual, but it would have to be reckoned with nevertheless.

Another type of brooder using current for heat is the battery. I have been using such a battery this season for storage purposes and holding pedigreed chicks for the first few weeks, and am very well pleased with it. It is self regulating and the heating feature requires no attention whatever. This battery is in my incubator cellar, which is heated to 70 degrees, and where I can run the temperature higher if necessary. There are also larger chick rooms and battery brooders on the market heated and ventilated by electricity which seem to be very satisfactory.

Relative Costs

As to the cost of such brooders, the canopy or hover type is about that of a good coal brooder. The battery which I have cost about \$70 delivered, and will hold 900 chicks for a few days, or 500 to three weeks. Operating costs of electric brooders vary with the rate for current and the conditions under which they are run, and while I cannot quote costs, I will guess that considering the saving of labor, they are not expensive to operate. My battery is supposed to cost about 60c per day for current, but as it is hooked on a line with other equipment I am not prepared to say what it costs.

Judging from experience and observation, I would say that where canopy or hover type electric brooders

Danger of Infection Among Baby Chicks

Success in raising baby chicks is dependent upon proper care and management. Readers are warned to exercise every sanitary precaution and beware of contaminated drinking water. Baby chicks must have a generous supply of pure water. Drinking vessels harbor germs and ordinary drinking water often becomes contaminated and may spread disease through your entire flock and cause the loss of half or two-thirds your hatch before you are aware. Don't wait until you lose half your chicks. Take the "stitch in time that saves nine." Remember, that in every hatch there is the danger of some infected chicks—danger of diarrhea in some form and other loose bowel and intestinal troubles. Don't let a few chicks infect your entire flock. Give Walko Tablets in all drinking water for the first two weeks and you won't lose one chick where you lost dozens before. These letters prove it:

Mrs. Bradshaw's Remarkable Success in Raising Baby Chicks

"Dear Sir: I see reports of so many losing their little chicks, so thought I would tell my experience. I used to lose a great many of the little downy fellows from bowel troubles, tried many remedies and was about discouraged. As a last resort I sent to the Walker Remedy Co., Dept. 500, Waterloo, Iowa, for their Walko Tablets for use in the drinking water of baby chicks. I used two 50c packages, raised 300 White Wyandottes and never lost one or had one sick after using the Tablets and my chicks are larger and healthier than ever before. I have found this Company thoroughly reliable and always get the remedy by return mail.—Mrs. C. M. Bradshaw, Beaconsfield, Iowa."

Never Lost One After First Dose

Mrs. Ethel Rhoades, Shenandoah, Iowa, writes: "My first incubator chicks when but a few days old, began to die by the dozens. I tried different remedies and was about discouraged with the chicken business. Finally I sent to the Walker Remedy Co., Waterloo, Iowa, for a box of their Walko Tablets to be used in the drinking water for baby chicks. It's just the only thing to keep the chicks free from disease. We raised 700 thrifty, healthy chicks and never lost a single chick after the first dose."

You Run No Risk

We will send Walko Tablets entirely at our risk—postage prepaid—so you can see for yourself what a wonderful remedy it is when used in the drinking water for baby chicks. So you can prove—as thousands have proven—that it will reduce your losses and double, treble, even quadruple your profits. Send 50c for a package of Walko Tablets (or \$1.00 for extra large box)—give it in all drinking water and watch results. You'll find you won't lose one chick where you lost dozens before. It's a positive fact. You run no risk. We guarantee to refund your money promptly if you don't find it the greatest little chick saver you ever used. The Pioneer National Bank, the oldest and strongest bank in Waterloo, Iowa, stands back of our guarantee.

Walko Tablets are sold by leading druggists and poultry supply dealers. WALKER REMEDY CO., Dept. 500 Waterloo, Iowa



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Kerr's Lively Chicks are closely related to our heavy producing contest birds.

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Mixed, 11¢ Reg. 10¢

White 12¢
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Barred Rocks 14¢
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Light Wyandottes 15¢
C. & W. Wyandottes 15¢
1000 lbs. 1000 lbs. 1000 lbs.
Less 5% cash with order or 25 chicks
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are used in a long house with a central heating system to take the chill off the air, they are satisfactory and very economical of labor, and that they are all right for colony house use late in the season or in a mild climate.

As for the battery type, which is used in a heated room, this season's experience with the one I have been using leads me to think that they are ideal for holding chicks or for starting chicks for a few weeks which are later to be put in a brooder house.

The rapid development of the battery brooder makes me think that its use is going to revolutionize methods of starting chicks and raising broilers. The battery idea is not yet fully worked out, and while some men have used batteries with excellent results, others have lost money with them.

Range Paralysis

We have six hundred White Leghorns. They look nice, are laying about three hundred and fifty eggs per day.

Every once in a while one of them seems to lose the use of its wings, then lies on its side and sometimes will be that way a couple of months—then dies.

YOUR birds may have a touch of range paralysis, for which I can suggest no remedy, except to remove ailing birds from the flock at once, and maintain good sanitary conditions.

It is also possible that worms may be present, although it is not likely that there would be a heavy infestation with the good production you are getting. I have used capsules with good results for worms. You might examine the intestinal contents of a dead bird for worms, and if you find any present, give a capsule to each of the living ailing birds. It would not be wise to worm the whole flock now, as it might throw them out of production.

Chick Mash

Will you kindly advise me what kind of feed to give little chicks, also what kind of litter to use in brooder house? Some use sand around stove and some use peat moss or something.

Mrs. Chas. F. Miller.

THE chick mash I am using is a formula put out by the New Jersey Experiment Station, which I have mixed at the feed mill. A great many poultrymen use commercial feeds, and you cannot go wrong on any of the well-known brands.

I use peat moss for brooder litter. Some use sand, shavings, or other material. Most of the trouble with litter comes from putting the chicks out without giving them feed. The consequence is that they fill up on indigestible stuff and get sick or die. The next set of Nest Box Notes takes up this subject and I think it will prove interesting to you.

R. L. S.

Swollen Joints

Every now and then a few of my White Rock chickens get swollen knees and sit around a long while before they die. What is the cause and what is the cure? Is this contagious? Are the eggs from the rest of the flock all right for hatching?

H. E. K.

LAMENESS in fowls may be caused by intestinal worms, a good treatment for which is a prepared capsule, which you may be able to buy at your drug store. There is some risk of throwing your flock out of production in using these worm treatments, and I would advise you to slit the intestines of a dead bird and examine the contents for worms before giving any worm treatment.

The symptoms may also be those of gout which may come from an improper ration. If you will tell me what you are feeding, I may be able to give you some help there.

I wouldn't attempt to hatch from the flock unless it is in generally good condition. If the birds are mostly in good shape, I would remove the ailing birds before saving hatching eggs.

R. L. S.

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The Life-Saver for Chicks

You cannot avoid the disease germs and bacteria that are picked up from the floor and droppings, you cannot avoid contamination from germ-laden little feet, you cannot avoid particles of spoiled or moldy food. But with a single teaspoonful of Germozone to the quart of drinking water three times a week, you can avoid the crop and bowel infection and diarrhoea that the germs and bacteria so surely bring on.

Each year increasing thousands of Germozone users save their chicks from this greatest danger. Leading hatchmen recommend Germozone, many public institutions and experiment stations use it. SAVE YOUR CHICKS. A trial bottle, at our expense, will show you that your big losses can easily be avoided.

Give Germozone if your chicks already are sick. Use it for all sick birds.

At drug, food and hardware dealers and chick hatcheries (one only at a town); or from factory, postage 12c. Bottle 10c. 1/2 lb. \$1.50; gal. \$4.50. \$4.50 textbook on diseases, free.

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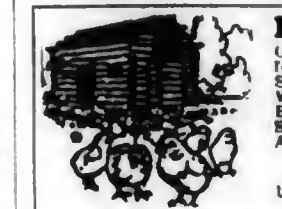


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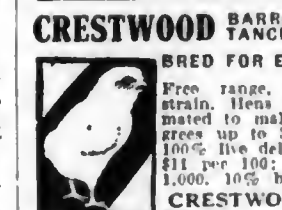


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Barred Rocks... 3.50 5.50 12.00
White Leghorns... 3.00 5.50 10.00
Heavy Mixed... 3.00 5.50 10.00
Light Mixed... 2.50 4.50 8.00
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Tanager Strain S. C. W. Leghorns... \$10.00 per 100
S. C. Barred Rocks... \$12.00 per 100
Heavy Mixed... \$9.00 per 100
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99.50% Pure or Better
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Bags free of course. Verified origin on all Farm Seeds if requested.

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Would not plant seed corn without it

"After the crows took nearly every stalk last season I used Stanley's Crow Repellent," writes R. O. Miller, Lucas, Iowa. "This season they did not take a stalk." "Keeps moles away," reports Chris Redding, Streator, Ill. Also gophers, and other seed corn enemies. Non-poisonous. Can not clog planter, wet or dry.

Large size can for 2 bu. seed corn (8 to 10 acres), \$1.50. Small can \$1.00. If your hardware, drug store or seed store doesn't carry "Stanley's," order from The Cedar Hill Formulae Co., Box 500-R, New Britain, Conn. Money Back Guarantee.

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Assisted Feed and Automatic Seed Hoppers Interchangeable

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Convertible disc covering gangs for ridge covering or shallow covering in furrow. Shallow covering increases yield; due to quicker germination, better weed control, and less severity of Rhizoctonia.

Automatic Planter has adjustable pickers—plants small, medium or large seed with the same high degree of accuracy.

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The Squash's Birthday

By GILBERT S. WATTS

IN the fall of 1928 I gave a friend several fine Blue Hubbard squashes. All had been used but one and this after being forgotten for a time was discovered in perfect condition. Since then it has been kept as a curiosity and gives promise of attaining its second birthday next fall. Of course that is not a record. But with a March snowstorm raging outside as this is being written it does impress one that squashes are a garden product that can and should be enjoyed throughout the six months or longer period during which we northerners are denied the privileges of gardening.

It will be of interest that this squash has been kept on a shelf in a dry cellar containing a heating furnace. Temperatures have varied little and there never has been an excess of moisture, just the conditions squashes like.

To have plenty of winter squashes next fall plant the middle of May in hills about eight by eight feet apart. Protect from the bugs and thin to not more than two strong plants in each hill, first thinning to three or four plants.

Ebenezer (Japanese) Onions

Sets of these may be obtained from a number of seedsmen. If planted early under good culture large, excellent keeping onions will be produced by midsummer. I know of no easier and more certain way to produce a crop of mature onions than from Ebenezer sets.

Spinach for the Dog!

On our way home from a show one Saturday evening last fall my wife remarked, as we passed the market house, "Let's stop and see what they have." And we stopped.

And we saw heaps and heaps of fine vegetables and other good things. And at many stands heaps and heaps of newspapers. We came to some of the most beautiful spinach you ever saw and we bought. And in all its newly washed dripping freshness the market lady wrapped our spinach in a newspaper.

Now newspaper paper is built with intent and design to absorb moisture and how! Arrived home my wife stepped from the car. I handed out the spinach package. The soggy paper disintegrated without notice. The spinach spilled to the floor where it was instantly and thoroughly investigated, trampled and broadcasted at one operation by a curious and joyful pup.

And this is neither comic strip nor fairy story, even if it does have a moral.

Why should the consumer buy produce wrapped in rotten newspapers at the market when he can get it in secure, water-resisting bags at the store? Freshness? Yes, sometimes, and used to be. Today shippers, distributors and retailers know a few things about conserving quality and are learning more. Pennsylvania is a stronghold of the retail farmers' market. Yet day by day the progressive store-keeper's window displays a line of green goods that cuts down on the farmer's lead in respect to freshness and attractiveness. Old newspapers! Where is the store-keeper who formerly used them? He's out.

Earlana Still Earlana

So says a vegetable specialist at a leading experiment station. To quote exactly, "An early tomato variety of good quality and fair yield has been the aim of seedsmen for years. Nothing remarkable has been accomplished as yet. Selected strains of Earlana are still Earlana in quality and appearance. Crosses between Earlana and other varieties, if early, still have the objectionable Earlana character-

istics." After trying at least a dozen improved Earlana I reached the same conclusion and have discontinued the variety for several years.

Avoid "Damping-Off"

Last year a gardener acquaintance could set only two-thirds of his usual acreage of early cabbage because damping-off had made serious inroads in his plant beds. Experiences of this sort are not uncommon and result in disheartening losses. Observation of certain rules usually will eliminate this trouble or at least keep it in close check.

Discard or sterilize soil in which damping-off has occurred previously. Do not crowd the plants; sow thin and thin or transplant to adequate spacings for good air circulation.

Provide sufficient heat for good growth but avoid very high temperatures.

Maintain even, never excessive moisture in the soil, watering principally in the mornings of bright days.

Ventilate freely but do not chill the plants.

Arrange sash or other coverings to admit as much light as possible.

THE MARKET PLACE

By W. R. WHITACRE

HOW much should a 100-pound sack of potatoes weigh? Retailers selling by weight expect 100 pounds of potatoes or close to that. But this past season they claim that many sacks have weighed only 80 to 90 pounds. I doubt whether they ever weighed 100 pounds in spite of the fact that most packs are stamped with "100 pounds when packed."

Shrinkage or loss in weight through evaporation varies with the season and more complaints of short weight are heard in the early part of the winter than with stock packed later in the year. When buyers find that a certain grower's potatoes run short in weight they refuse to pay full price for them.

A number of retail fruit and vegetable stores have protested against the ruling in the recent Container's Act which prohibits the sale of the quarter-peck round basket. They used these baskets to display and to measure fruits and vegetables. Apples, for instance, were displayed and sold from this container, with the dealer keeping the basket.

I personally hope that their pleas are in vain, since many of them use this container to deceive the public. Apples arranged carefully in one of these baskets look very attractive, but it takes only five to eight apples to heap it high. At present they are charging in Philadelphia from 20c to 35c for one of these baskets of apples and that makes medium sized Yorks sell at four cents each and over.

New Jersey and Pennsylvania greens are coming on the market more freely as the season advances. Many consumers as well as growers are not acquainted with the great variety that is available. One day last week the market reports quoted collards, cabbage sprouts, field cress, dandelion, rape, rabe and turnip greens. All of these greens were from the nearby states.

Many market gardeners are finding flowers a profitable side-line. Fuchsias are one crop that works in well with market gardening and which give a good return. A number of Pennsylvania growers located near Philadelphia have been growing them quite intensively and find a ready sale for the plants.

Your baking is bound to be better

Millions of women find sure success with Calumet's Double-Action

This is a message for women who want perfection in their baking every time. We want to show them how they can make such wonderful cakes and quick breads that their families will boast about them to their neighbors. We want to tell them why Calumet—the Double-Acting Baking Powder—brings such remarkable baking success.

Calumet acts twice, not once. The first action takes place in the mixing bowl. This starts the leavening. Then, when you put your cake into the oven, a new, fresh rising swells through your batter, lifts it to the top of the pan and holds it there until the oven heat has done its work. In this way Calumet's Double-Action makes your baking rise beautifully and come out exactly right, time after time—even though you may not be able to regulate your own temperature accurately.

All baking powders are required by law to be made of pure, wholesome ingredients, but not all are alike in their action. Not all will give you equally fine results in your baking. Calumet is scientifically made of exactly the right ingredients, in exactly the right proportions to produce perfect leavening action—Double-Action.

Try the delightful recipe given here. You will notice how little Calumet it calls for. The usual Calumet proportion, which should be followed for best results, is—one level teaspoon of Calumet to each cup of sifted flour—a worthwhile economy.



CALUMET

The Double-Acting
Baking Powder

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Test Calumet's DOUBLE-ACTION this way!

Naturally, when baking, you can't see how Calumet's Double-Action works inside the dough or batter to make it rise. But, by making this simple demonstration with only baking powder and water in a glass, you can see clearly how baking powder acts—and how Calumet acts twice to make your baking better.

Put two level teaspoons of Calumet into a glass, add two teaspoons of water, stir rapidly five times and remove the spoon. The tiny, fine bubbles will rise slowly, half filling the glass. This is Calumet's first action—the action that takes place in the mixing bowl when you add liquid to your dry ingredients.

After the mixture has entirely stopped rising, stand the glass in a pan of hot water on the stove. In a moment, a second rising will start and continue until the mixture rises to the top of the glass. This is Calumet's second action—the action that takes place in the heat of your oven.

Make this test today. See Calumet's Double-Action which protects your baking from failure.

CALUMET'S DOUBLE ACTION



MAKES BETTER BAKING

Recipe for Vanilla Nut Ice Box Cookies

- | | |
|-----------------------------------|--------------------------|
| 4 cups sifted flour | 1 cup sifted brown sugar |
| 3 teaspoons Calumet Baking Powder | 2 cups granulated sugar |
| 1/4 teaspoon salt | 2 eggs, well beaten |
| 1 cup butter or other shortening | 1 cup nut meats, chopped |
| | 1 tablespoon vanilla |

Sift flour once, measure, add baking powder and salt, and stir again. Cream butter thoroughly, add sugars gradually, and cream well. Add eggs, nuts, and vanilla. Add flour gradually. Shape into 1 1/2 inch balls in diameter. Let stand in ice box over night or until hard enough to slice. Cut into 1/4 inch slices. Bake in hot oven 425° F., 10 minutes. Makes dozen cookies. (All measurements are level.)

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Large size can for 2 bu. seed corn (8 to 10 acres), \$1.50. Small can \$1.00. If your hardware, drug store or seed store doesn't carry "Stanley's," order from The Cedar Hill Formulae Co., Box 500-R, New Britain, Conn. Money Back Guarantee.

STANLEY'S CROW REPELLENT



IRON AGE POTATO PLANTERS



One-Row and Two-Row
Assisted Feed and Automatic Seed Hoppers Interchangeable
Fertilizer Attachments Available for Both High and Low Analysis Fertilizers
Convertible disc covering gangs for ridge covering or shallow covering in furrow. Shallow covering increases yield; due to quicker germination, better weed control, and less severity of Rhizoctonia.
Automatic Planter has adjustable pickers—plants small, medium or large seed with the same high degree of accuracy.
Tuber Unit Attachment for Assisted Feed Planters.
Write for Free Planter Folder—Today
FRED. H. BATEMAN COMPANY
636 Chestnut St. Public Ledger Bldg. Philadelphia, Pa.

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4-8-7

It Makes Potatoes Pay!

FRUIT TREES
Seeds—Berry Plants—Ornamentals
3-4 ft. Apple Tree, 3 ft. Peach Tree each, two-year-old. Guaranteed stock. Farm, flower and garden seeds. We have 500,000 Fruit Trees, berry plants, Shade Trees, etc. In fact our tree list catalog has everything for garden, farm and lawn.
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BIG PROFITS
For a big season get our coupons. Honey, supers, containers, sections, extractors, etc.
WRITE FOR OUR PRICE LIST AND CATALOGUE—IT'S FREE.
THE A. I. ROOT CO. OF PHILA.
10 VINE ST. PHILA., PA.

When writing advertisers please mention Pennsylvania Farmer

The Squash's Birthday

By GILBERT S. WATTS

IN the fall of 1928 I gave a friend several fine Blue Hubbard squashes. All had been used but one and this after being forgotten for a time was discovered in perfect condition. Since then it has been kept as a curiosity and gives promise of attaining its second birthday next fall. Of course that is not a record. But with a March snowstorm raging outside as this is being written it does impress one that squashes are a garden product that can and should be enjoyed throughout the six months or longer period during which we northerners are denied the privileges of gardening.

It will be of interest that this squash has been kept on a shelf in a dry cellar containing a heating furnace. Temperatures have varied little and there never has been an excess of moisture, just the conditions squashes like.

To have plenty of winter squashes next fall plant the middle of May in hills about eight by eight feet apart. Protect from the bugs and thin to not more than two strong plants in each hill, first thinning to three or four plants.

Ebenezer (Japanese) Onions

Sets of these may be obtained from a number of seedsmen. If planted early under good culture large, excellent keeping onions will be produced by midsummer. I know of no easier and more certain way to produce a crop of mature onions than from Ebenezer sets.

Spinach for the Dog!

On our way home from a show one Saturday evening last fall my wife remarked, as we passed the market house, "Let's stop and see what they have." And we stopped.

And we saw heaps and heaps of fine vegetables and other good things. And at many stands heaps and heaps of newspapers. We came to some of the most beautiful spinach you ever saw and we bought. And in all its newly washed dripping freshness the market lady wrapped our spinach in a newspaper.

Now newspaper paper is built with intent and design to absorb moisture and how! Arrived home my wife stepped from the car. I handed out the spinach package. The sopping paper disintegrated without notice. The spinach spilled to the floor where it was instantly and thoroughly investigated, trampled and broadcasted at one operation by a curious and joyful pup.

And this is neither comic strip nor fairy story, even if it does have a moral.

Why should the consumer buy produce wrapped in rotten newspapers at the market when he can get it in secure, water-resisting bags at the store? Freshness? Yes, sometimes, and used to be. Today shippers, distributors and retailers know a few things about conserving quality and are learning more. Pennsylvania is a stronghold of the retail farmers' market. Yet day by day the progressive store-keeper's window displays a line of green goods that cuts down on the farmer's lead in respect to freshness and attractiveness. Old newspapers! Where is the store-keeper who formerly used them? He's out.

Earliana Still Earliana

So says a vegetable specialist at a leading experiment station. To quote exactly, "An early tomato variety of good quality and fair yield has been the aim of seedsmen for years. Nothing remarkable has been accomplished as yet. Selected strains of Earliana are still Earliana in quality and appearance. Crosses between Earliana and other varieties, if early, still have the objectionable Earliana character-

istics." After trying at least a dozen improved Earliana I reached the same conclusion and have discontinued the variety for several years.

Avoid "Damping-Off"

Last year a gardener acquaintance could set only two-thirds of his usual acreage of early cabbage because damping-off had made serious inroads in his plant beds. Experiences of this sort are not uncommon and result in disheartening losses. Conservation of certain rules usually will eliminate this trouble or at least keep it in check.

Discard or sterilize soil in which damping-off has occurred previously. Do not crowd the plants; sow thin and thin or transplant to adequate spacings for good air circulation.

Provide sufficient heat for good growth but avoid very high temperatures.

Maintain even, never excessive moisture in the soil, watering principally in the mornings of bright days. Ventilate freely but do not chill the plants.

Arrange sash or other coverings to admit as much light as possible.

THE MARKET PLACE

By W. R. WHITACRE

HOW much should a 100-pound sack of potatoes weigh? Retailers selling by weight expect 100 pounds of potatoes or close to that. But this past season they claim that many sacks have weighed only 80 to 90 pounds. I doubt whether they ever weighed 100 pounds in spite of the fact that most packs are stamped with "100 pounds when packed."

Shrinkage or loss in weight through evaporation varies with the season and more complaints of short weight are heard in the early part of the winter than with stock packed later in the year. When buyers find that a certain grower's potatoes run short in weight they refuse to pay full price for them.

A number of retail fruit and vegetable stores have protested against the ruling in the recent Container's Act which prohibits the sale of the quarter-peck round basket. They used these baskets to display and to measure fruits and vegetables. Apples, for instance, were displayed and sold from this container, with the dealer keeping the basket.

I personally hope that their pleas are in vain, since many of them use this container to deceive the public. Apples arranged carefully in one of these baskets look very attractive, but it takes only five to eight apples to heap it high. At present they are charging in Philadelphia from 20c to 35c for one of these baskets of apples and that makes medium sized Yorks sell at four cents each and over.

New Jersey and Pennsylvania greens are coming on the market more freely as the season advances. Many consumers as well as growers are not acquainted with the great variety that is available. One day last week the market reports quoted collards, cabbage sprouts, field cress, dandelion, rape, rabe and turnip greens. All of these greens were from the nearby states.

Many market gardeners are finding flowers a profitable side-line. Pansies are one crop that works in well with market gardening and which give a good return. A number of Pennsylvania growers located near Philadelphia have been growing them quite intensively and find a ready sale for the plants.

Your baking is bound to be better

Millions of women find sure success with Calumet's Double-Action

This is a message for women who want perfection in their baking every time. We want to show them how they can make such wonderful cakes and quick breads that their families will boast about them to neighbors. We want to tell them why Calumet—the Double-Acting Baking Powder—brings such remarkable baking success.

Calumet acts twice, not once. The first action takes place in the mixing bowl. This starts the leavening. Then, when you put your cake into the oven, a new, fresh rising swells through your batter, lifts it to the top of the pan and holds it there until the oven heat has done its work. In this way Calumet's Double-Action makes your baking rise beautifully and come out exactly right, time after time—even though you may not be able to regulate your oven temperature accurately.

All baking powders are required by law to be made of pure, wholesome ingredients. But not all are alike in their action. Not all will give you equally fine results in your baking. Calumet is scientifically made of exactly the right ingredients, in exactly the right proportions to produce perfect leavening action—Double-Action.

Try the delightful recipe given here. You will notice how little Calumet it calls for. The usual Calumet proportion, which should be followed for best results, is—only a level teaspoon of Calumet to each cup of sifted flour—a worthwhile economy.



CALUMET

The Double-Acting Baking Powder

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Test Calumet's DOUBLE-ACTION this way!

Naturally, when baking, you can't see how Calumet's Double-Action works inside the dough or batter to make it rise. But, by making this simple demonstration with only baking powder and water in a glass, you can see clearly how baking powder acts—and how Calumet acts twice to make your baking better.

Put two level teaspoons of Calumet into a glass, add two teaspoons of water, stir rapidly five times and remove the spoon. The tiny, fine bubbles will rise slowly, half filling the glass. This is Calumet's first action—the action that takes place in the mixing bowl when you add liquid to your dry ingredients.

After the mixture has entirely stopped rising, stand the glass in a pan of hot water on the stove. In a moment, a second rising will start and continue until the mixture rises to the top of the glass. This is Calumet's second action—the action that takes place in the heat of your oven.

Make this test today. See Calumet's Double-Action which protects your baking from failure.

CALUMET'S DOUBLE ACTION



MAKES BETTER BAKING

Recipe for Vanilla Nut Ice Box Cookies

- | | |
|----------------------------------|--------------------------|
| 4 cups sifted flour | 1 cup sifted brown sugar |
| 3 teaspoons Calumet | 2 cups granulated sugar |
| Baking Powder | 2 eggs, well beaten |
| 1/4 teaspoon salt | 1 cup nut meats, chopped |
| 1 cup butter or other shortening | 1 tablespoon vanilla |

Sift flour once, measure, add baking powder and salt, and sift again. Cream butter thoroughly, add sugars gradually, and cream well. Add eggs, nuts, and vanilla. Add flour gradually. Shape into rolls 1 1/2 inches in diameter. Let stand in ice box over night or until hard enough to slice. Cut into thin slices. Bake in hot oven (425°F.) 10 minutes. Makes 6 dozen cookies. (All measurements are level.)

FREE

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Please send me, free, a copy of the Calumet Baking Book.

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"I can turn over half again as many acres on a gallon of this New Mobiloil"

(and the farmer who says so lives in Missouri!)

Down in Missouri they don't take anything on faith. We knew that the New Mobiloil would last longer . . . save power . . . cut fuel costs . . . and reduce repair bills.

But it's only natural for a Missourian to take a manufacturer's enthusiasm with a grain of salt.

So our Missouri friend* made some oil tests on his own. His experience had shown that in buying oil it's not price per gallon that counts, but what it costs per acre covered, day in day out, season after season. He had a good idea of the cost of the oil he had been using, figured on that basis.

A 30-gallon drum of the New Mobiloil,

the New Mobiloil



and five months of close check-up on every kind of tractor work, was more than enough. Then he told his Mobiloil dealer, "This New Mobiloil may cost more a gallon, but that's not what interests me. I can turn over half again as many acres on a gallon of it, use less kerosene, and I haven't had a wrench on that 'mud-hog' since I began using it."

Refer to the complete Mobiloil Chart at your dealer's for the correct grade of the New Mobiloil to use in your car, truck or tractor. It will save you nickels every working day, and dollars by the month.

VACUUM OIL COMPANY
Makers of high quality lubricants for all types of machinery

MAKE THIS CHART YOUR GUIDE

THE correct grades of Gargoyle Mobiloil for engine lubrication of prominent passenger cars, motor trucks, and tractors are specified below. If your car is not listed here, see the complete Chart at your dealer's. Follow winter recommendations when temperatures fall from 32° F. (Freezing) to 0° F. (Zero) and below. Below zero use Gargoyle Mobiloil Arctic (except for Model T, T-1, T-2, use Gargoyle Mobiloil "F").

| NAMES OF PASSENGER CARS, MOTOR TRUCKS AND TRACTORS | 1929 | | 1928 | | 1927 | | 1926 | |
|---|--------|--------|--------|--------|--------|--------|--------|--------|
| | Summer | Winter | Summer | Winter | Summer | Winter | Summer | Winter |
| Autocrat, Town & Waukegan (H) (own engine) | A | BB | A | BB | A | BB | A | BB |
| Buck | BB | BB | BB | BB | BB | BB | BB | BB |
| Cadillac | BB | BB | BB | BB | BB | BB | BB | BB |
| Chandler Special Six | A | A | A | A | A | A | A | A |
| Chevrolet | A | A | A | A | A | A | A | A |
| Chrysler, 4-cyl | A | A | A | A | A | A | A | A |
| Imperial 30 | BB | BB | BB | BB | BB | BB | BB | BB |
| Diamond T | A | A | A | A | A | A | A | A |
| Dumont | A | A | A | A | A | A | A | A |
| Lozier | A | A | A | A | A | A | A | A |
| Federal, 100 | A | A | A | A | A | A | A | A |
| Ford, 4-cyl, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 300, 310, 320, 330, 340, 350, 360, 370, 380, 390, 400, 410, 420, 430, 440, 450, 460, 470, 480, 490, 500, 510, 520, 530, 540, 550, 560, 570, 580, 590, 600, 610, 620, 630, 640, 650, 660, 670, 680, 690, 700, 710, 720, 730, 740, 750, 760, 770, 780, 790, 800, 810, 820, 830, 840, 850, 860, 870, 880, 890, 900, 910, 920, 930, 940, 950, 960, 970, 980, 990, 1000 | A | A | A | A | A | A | A | A |
| Franklin | BB | BB | BB | BB | BB | BB | BB | BB |
| General | A | A | A | A | A | A | A | A |
| Graham Brothers | A | A | A | A | A | A | A | A |
| Hudson | BB | BB | BB | BB | BB | BB | BB | BB |
| Hupmobile | A | A | A | A | A | A | A | A |
| International Special Delivery, Waukegan engine | A | A | A | A | A | A | A | A |
| 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 105, 110, 115, 120, 125, 130, 135, 140, 145, 150, 155, 160, 165, 170, 175, 180, 185, 190, 195, 200, 205, 210, 215, 220, 225, 230, 235, 240, 245, 250, 255, 260, 265, 270, 275, 280, 285, 290, 295, 300, 305, 310, 315, 320, 325, 330, 335, 340, 345, 350, 355, 360, 365, 370, 375, 380, 385, 390, 395, 400, 405, 410, 415, 420, 425, 430, 435, 440, 445, 450, 455, 460, 465, 470, 475, 480, 485, 490, 495, 500, 505, 510, 515, 520, 525, 530, 535, 540, 545, 550, 555, 560, 565, 570, 575, 580, 585, 590, 595, 600, 605, 610, 615, 620, 625, 630, 635, 640, 645, 650, 655, 660, 665, 670, 675, 680, 685, 690, 695, 700, 705, 710, 715, 720, 725, 730, 735, 740, 745, 750, 755, 760, 765, 770, 775, 780, 785, 790, 795, 800, 805, 810, 815, 820, 825, 830, 835, 840, 845, 850, 855, 860, 865, 870, 875, 880, 885, 890, 895, 900, 905, 910, 915, 920, 925, 930, 935, 940, 945, 950, 955, 960, 965, 970, 975, 980, 985, 990, 995, 1000 | A | A | A | A | A | A | A | A |
| Marquette | BB | BB | BB | BB | BB | BB | BB | BB |
| Nash Advanced Six | BB | BB | BB | BB | BB | BB | BB | BB |
| Oldsmobile | A | A | A | A | A | A | A | A |
| Packard | A | A | A | A | A | A | A | A |
| Pontiac | A | A | A | A | A | A | A | A |
| Reo | A | A | A | A | A | A | A | A |
| Republic, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100 | A | A | A | A | A | A | A | A |
| Service | BB | BB | BB | BB | BB | BB | BB | BB |
| Star | A | A | A | A | A | A | A | A |
| Stearns, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 105, 110, 115, 120, 125, 130, 135, 140, 145, 150, 155, 160, 165, 170, 175, 180, 185, 190, 195, 200, 205, 210, 215, 220, 225, 230, 235, 240, 245, 250, 255, 260, 265, 270, 275, 280, 285, 290, 295, 300, 305, 310, 315, 320, 325, 330, 335, 340, 345, 350, 355, 360, 365, 370, 375, 380, 385, 390, 395, 400, 405, 410, 415, 420, 425, 430, 435, 440, 445, 450, 455, 460, 465, 470, 475, 480, 485, 490, 495, 500, 505, 510, 515, 520, 525, 530, 535, 540, 545, 550, 555, 560, 565, 570, 575, 580, 585, 590, 595, 600, 605, 610, 615, 620, 625, 630, 635, 640, 645, 650, 655, 660, 665, 670, 675, 680, 685, 690, 695, 700, 705, 710, 715, 720, 725, 730, 735, 740, 745, 750, 755, 760, 765, 770, 775, 780, 785, 790, 795, 800, 805, 810, 815, 820, 825, 830, 835, 840, 845, 850, 855, 860, 865, 870, 875, 880, 885, 890, 895, 900, 905, 910, 915, 920, 925, 930, 935, 940, 945, 950, 955, 960, 965, 970, 975, 980, 985, 990, 995, 1000 | A | A | A | A | A | A | A | A |
| Studebaker (Pass) | A | A | A | A | A | A | A | A |
| White, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100 | A | A | A | A | A | A | A | A |
| Willis-Knight, 4-cyl | BB | BB | BB | BB | BB | BB | BB | BB |
| 6-cyl | BB | BB | BB | BB | BB | BB | BB | BB |
| TRACTORS | | | | | | | | |
| Allis-Chalmers, 15-25 | BB | BB | BB | BB | BB | BB | BB | BB |
| Case, 25-45 | BB | BB | BB | BB | BB | BB | BB | BB |
| Caterpillar | BB | BB | BB | BB | BB | BB | BB | BB |
| Chetco | BB | BB | BB | BB | BB | BB | BB | BB |
| Fordson | BB | BB | BB | BB | BB | BB | BB | BB |
| Hart Parr | BB | BB | BB | BB | BB | BB | BB | BB |
| John Deere | BB | BB | BB | BB | BB | BB | BB | BB |
| McCormick | BB | BB | BB | BB | BB | BB | BB | BB |
| Ol-Pull | BB | BB | BB | BB | BB | BB | BB | BB |
| Twin City, 40-65 | BB | BB | BB | BB | BB | BB | BB | BB |
| Walls | BB | BB | BB | BB | BB | BB | BB | BB |
| TRANSMISSION AND DIFFERENTIALS | | | | | | | | |
| For their correct lubrication use Gargoyle "C" or "LW" Mobilgrease, or Engine Oil, as recommended by complete Chart available at all dealers. | | | | | | | | |

NOTE: For a season's supply we recommend the 55-gallon or 30-gallon with convenient faucet.

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AT THE AMAZINGLY LOW PRICE OF

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AND UP F. O. B. FACTORY

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- the LOWEST PRICE at which Dodge Brothers have ever offered a closed car.
- the LOWEST PRICE at which a Six with internal-expanding 4-wheel hydraulic brakes ever has been offered.
- the LOWEST PRICE at which you could have a car with a Mono-piece (Steel) Body, the most advanced construction known to the industry.

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SENSATIONAL IN VALUE

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- SENSATIONAL VALUE in engineering—with Down-Draft carburetion; both air and oil cleaner; 220.7 cubic inch piston displacement; 4-wheel hydraulic brakes.
- SENSATIONAL VALUE in comfort and luxury—four hydraulic double-acting shock absorbers; low-swung, silent, safe Mono-piece (Steel) Body; pillow-type mohair or broadcloth upholstery; fully adjustable front seat.
- SENSATIONAL VALUE in its typical Dodge Brothers quality and dependability.

DODGE BROTHERS

UPHOLDING EVERY TRADITION OF DODGE DEPENDABILITY

Tests have shown that live stock hauled to market will lose less weight in a smooth-rolling truck.

Balloon tire softness helps to keep trucks rolling over soft ground, muddy roads. Because you can safely travel at higher average speed, you can make more trips per day—or make single trips to town and back in shorter time. These new tires lower costs by extra mileage.



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Put them on your trucks — and end the tire troubles due to high speed, long distance operation.

They're great tires for farm trucks, at a price you can afford to pay. Let the nearest Goodyear Truck Tire Service Station Dealer show you how easily the change-over can be made on your present truck. Specify them on new trucks.

More tons are hauled on Goodyear Tires than on any other kind.

GOODYEAR

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Orchard Windfalls

By S. W. FLETCHER

DR. R. D. ANTHONY of State College draws an indictment against a continuous bluegrass sod in the orchard. This grass makes its heaviest growth, and hence its greatest demand on the soil for nitrogen, in early spring, when fruit trees need it most. Other grasses, as timothy and orchard-grass, do not compete with the trees so much. Young tender bluegrass may be 20 per cent protein, as compared with four per cent for timothy; hence its higher demand on soil nitrogen. Only a small percentage of a nitrogenous fertilizer applied in early spring to an orchard in heavy bluegrass sod may reach the tree roots; it is appropriated by the bluegrass. This is why, in both experimental work and in growers' experience, a steadily increasing amount of nitrate is necessary to secure equivalent response in a bluegrass orchard.

This evidence does not rule out bluegrass, which will remain an admirable cover for the orchard, especially on limestone soils; it merely points to the desirability of turning a bluegrass sod frequently, before it becomes very heavy, perhaps every three to five years. This puts organic matter into the soil also.

Succession of Apple Varieties

Peter Boltz, a local market apple grower of Lebanon, has grown many varieties—too many, he now feels—and has come to this conclusion: that the fundamental sorts for him are four—Yellow Transparent, Summer Rambo, Smokehouse and Stayman. To these he would add more limited plantings of the following varieties, which will give a succession during the entire year for a local market trade: Red Astrachan, Duchesse, Wealthy, Grimes, Winter Banana, Delicious, Baldwin, Rome, York, Paragon, also two sweet varieties, Sweet Bough for summer, and Paradise for winter. There is always a limited but lucrative demand for sweet apples at roadside markets. All the varieties on his list would not be suitable in northern Pennsylvania.

Common Storage

John Runk, Huntingdon county, has recently built one of the widest monolithic concrete common storage houses in the state. It is 160 feet long and 51 feet wide. Rarely are such houses built over 40 feet wide. The roof slab ranges in thickness from 11½ inches at the eaves to 9½ inches at the center. Ventilation is secured through doors at each end; there are no ventilators. He stores the apples in bushel baskets piled seven tiers high, not in crates, with satisfactory results until this year. Baldwin and Stayman went on the market from common storage over-ripe this year; the autumn was too warm. To Mr. Runk this seems to indicate the need of supplemental cold storage.

This has been a very poor common storage year, generally, not only because of the warm fall but also because of the very dry season which made the fruit, especially varieties like Baldwin and Stayman, of poor storage quality. The loss from decay has been exceptionally heavy. When rats or mice begin to damage the fruit in his storage, Mr. Runk puts the tractor inside, closes the doors and runs it until the monoxide gas has done its work. He says, "I give my least valuable hired man the job of running it."

Apple Exports and Apple Grades

Our federal representative in European apple markets, Mr. F. A. Motz, reports that Great Britain is thinking of excluding all American apples that are not very strictly graded. This action arises chiefly from the

sad experience they have had with a large quantity of American apples marked "Unclassified." This term means nothing at all, and includes all sorts of grades.

This contemplated action affects Pennsylvania. According to D. M. James, of the Pennsylvania Bureau of Markets, the Shenandoah-Cumberland region, including southern Pennsylvania and adjacent states, exports more apples than New York or Washington. In 1926-1927, 55 per cent of the carlot shipments of Pennsylvania were exported. The proportion has been somewhat less the last three seasons. The 15,000,000 bushels that the United States exports in normal seasons is a very important factor in maintaining fair prices in the domestic markets.

The very common use of the "Unclassified" fraud in New York and Virginia has tended to demoralize the whole standard apple grade movement in the East. Growers have contended that the specifications of the U. S. No. 1 grade are too high, especially in color, hence they have resorted to this subterfuge. In Pennsylvania, however, there has been a steadily increasing use of the U. S. standard grades.

This problem will be considered at a meeting of representatives of the growing industry of the eastern apple states, to be held in Washington, D. C., April 30, at 10:00 a. m., in the Conference Room of the Bieber Building, 14th and B Streets, S. W.

When to Prune Fruit Trees

I NOTICE this question has been asked by several persons. My answer would be, do not prune any of your fruit trees until they are coming out in bud. From that time until the fifteenth of June I consider a very good time to prune. I note some of our large commercial fruit growers say to prune at any time. I am not in favor of winter pruning. When you cut off a limb during the dormant season the cut will get dry and turn dark. The bark around the edge of the wound will get dry and die from one-eighth to one-fourth inch and it takes a whole season to heal that wound over. By pruning when the sap is up you will heal that wound over the first season.

Never use a saw for pruning, unless you have some very large limbs. Take the knife and smooth over the wound, as a saw cut will hold water and cause a rotten spot. A wound of any size should be covered over with grafting wax or paraffin. I consider paint a poison to a wound. It injures the edge of the bark and keeps the wound from making an early start to heal over. You should make a close clean cut in cutting off a limb. In using a clipper you generally leave a stub which will disfigure the tree and is hard to heal over. H. S. B.

Winter Injury

I am sending a box of twigs taken from trees that were set in 1928. They did not make much growth this past year due to the dry weather. I suppose. Last fall they looked all right as far as I could see. But on looking them over yesterday fully 85 per cent of them are dead, down to about a foot from the ground. W. M. B.

UNDoubtedly this is winter injury, which has been quite common this year. The twigs show no evidence of injurious insects or diseases. If the bark is green on the main roots and for six or more inches above the bud or graft, it will pay to let the trees remain. Shoots probably will break from below the injured top. I would trim the dead top to a whip and use it as a stake to support the single new shoot that is selected to renew the trunk. Cut it off next spring. S. W. F.



PLAN WELL—and NEW YORK CENTRAL LINES will help you make more money!

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Orchard Windfalls

By S. W. FLETCHER

DR. D. ANTHONY of State College draws an indictment against a continuous bluegrass sod in the orchard. This grass makes its heaviest growth, and hence its greatest demand on the soil for nitrogen, in early spring, when fruit trees need it most. Other grasses, as timothy and orchard-grass, do not compete with the trees so much. Young tender bluegrass may be 20 per cent protein, as compared with four per cent for timothy; hence its higher demand on soil nitrogen. Only a small percentage of a nitrogenous fertilizer applied in early spring to an orchard in heavy bluegrass sod may reach the tree roots; it is appropriated by the bluegrass. This is why, in both experimental work and in growers' experience, a steadily increasing amount of nitrate is necessary to secure equivalent response in a bluegrass orchard.

This evidence does not rule out bluegrass, which will remain an admirable cover for the orchard, especially on limestone soils; it merely points to the desirability of turning a bluegrass sod frequently, before it becomes very heavy, perhaps every three to five years. This puts organic matter into the soil also.

Succession of Apple Varieties

Peter Boltz, a local market apple grower of Lebanon, has grown many varieties—too many, he now feels—and has come to this conclusion: that the fundamental sorts for him are four—Yellow Transparent, Summer Rambo, Smokehouse and Stayman. To these he would add more limited plantings of the following varieties, which will give a succession during the entire year for a local market trade: Red Astrachan, Duchessa, Wealthy, Grimes, Winter Banana, Delicious, Baldwin, Rome, York, Paragon, also two sweet varieties, Sweet Bough for summer, and Paradise for winter. There is always a limited but lucrative demand for sweet apples at roadside markets. All the varieties on his list would be suitable in northern Pennsylvania.

Common Storage

John Runk, Huntingdon county, has recently built one of the widest monolithic concrete common storage houses in the state. It is 160 feet long and 31 feet wide. Rarely are such houses built over 40 feet wide. The roof slab ranges in thickness from 11½ to 12 inches at the eaves to 9½ inches at the center. Ventilation is secured through doors at each end; there are no ventilators. He stores the apples in bushel baskets piled seven tiers high not in crates, with satisfactory results until this year. Baldwin and Stayman went on the market from common storage over-ripe this year; the autumn was too warm. To Mr. Runk this seems to indicate the need of supplemental cold storage.

This has been a very poor common storage year, generally, not only because of the warm fall but also because of the very dry season which made the fruit, especially varieties like Baldwin and Stayman, of poor storage quality. The loss from decay has been exceptionally heavy. When rats or mice begin to damage the fruit in his storage, Mr. Runk puts the fruit inside, closes the doors and waits until the monoxide gas has done its work. He says, "I give my best hired man the job of turning the fruit over."

Apple Exports and Apple Grades

The local representative in European markets, Mr. C. A. Motz, reports that Great Britain is thinking of including all American apples in the list, not very strictly graded. The reason arises chiefly from the

sad experience they have had with a large quantity of American apples marked "Unclassified." This term means nothing at all, and includes all sorts of grades.

This contemplated action affects Pennsylvania. According to D. M. James, of the Pennsylvania Bureau of Markets, the Shenandoah-Cumberland region, including southern Pennsylvania and adjacent states, exports more apples than New York or Washington. In 1926-1927, 55 per cent of the carlot shipments of Pennsylvania were exported. The proportion has been somewhat less the last three seasons. The 15,000,000 bushels that the United States exports in normal seasons is a very important factor in maintaining fair prices in the domestic markets.

The very common use of the "Unclassified" brand in New York and Virginia has tended to demoralize the whole standard apple grade movement in the East. Growers have contended that the specifications of the U. S. No. 1 grade are too high, especially in color, hence they have resorted to this subterfuge. In Pennsylvania, however, there has been a steadily increasing use of the U. S. standard grades.

This problem will be considered at a meeting of representatives of the growing industry of the eastern apple states, to be held in Washington, D. C., April 30, at 10:00 a. m., in the Conference Room of the Bieber Building, 14th and B Streets, S. W.

When to Prune Fruit Trees

I NOTICE this question has been asked by several persons. My answer would be, do not prune any of your fruit trees until they are coming out in bud. From that time until the fifteenth of June I consider a very good time to prune. I note some of our large commercial fruit growers say to prune at any time. I am not in favor of winter pruning. When you cut off a limb during the dormant season the cut will get dry and turn dark. The bark around the edge of the wound will get dry and die from one-eighth to one-fourth inch and it takes a whole season to heal that wound over. By pruning when the sap is up you will heal that wound over the first season.

Never use a saw for pruning, unless you have some very large limbs. Take the knife and smooth over the wound, as a saw cut will hold water and cause a rotten spot. A wound of any size should be covered over with grafting wax or paraffin. I consider paint a poison to a wound. It injures the edge of the bark and keeps the wound from making an early start to heal over. You should make a close clean cut in cutting off a limb. In using a clipper you generally leave a stub which will disfigure the tree and is hard to heal over. H. S. B.

Winter Injury

I am sending a box of twigs taken from trees that were set in 1928. They did not make much growth this past year due to the dry weather. I suppose, last fall they looked all right as far as I could see. But on looking them over yesterday fully 95 per cent of them are dead down to about a foot from the ground. W. M. B.

UNDoubtedly this is winter injury, which has been quite common this year. The twigs show no evidence of injurious insects or diseases. If the bark is green on the main roots and for six or more inches above the bud or graft, it will pay to let the trees remain. Shoots probably will break from below the injured top. I would trim the dead top to a whip and use it as a stake to support the single new shoot that is selected to renew the trunk. Cut it off next spring. S. W. F.



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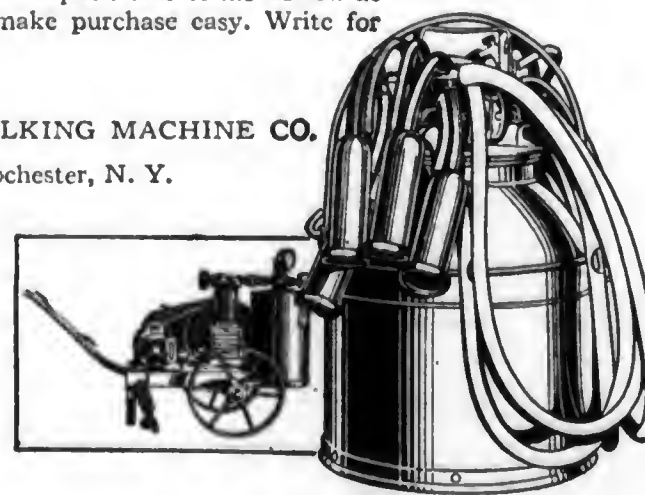
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EMPIRE MILKING MACHINE CO.
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Farm & Dairy

By L. W. LIGHTY

"I WOULD like to know what it costs to keep a cow. I find it too difficult to try to keep an account that really tells me anything. I have five cows and the amount I drew from the milk station for 1929 was \$610. We used the milk and cream we wanted in the family. Can you tell me what it costs to keep a cow a year?"

A lead pencil diligently used would have told this man better than I can. Records before me from different parts of the country indicate that it cost from \$110 to over \$200 to keep a cow a year. But on a well conducted farm a cow may be fed a year for about \$75. I mean where you grow a lot of grain, have clover hay and possibly some alfalfa and plenty of pasture in the summer. All this reduces the cost of feeding the cow. If this estimate is approximately correct to feed the five cows would have cost \$375. It may be fair or it may not to say that the manure and the calves paid all the other costs save the labor.

With these estimates in mind we find the inquirer had \$235 for his labor, which is almost \$20 per month. He says he thinks he did well, and so do I, because many have done much worse.

Another inquirer, apparently new on the farm, says he bought two cows fresh two months ago and he has been feeding them all they will eat, but of late they eat poorly and have dropped in milk flow.

This man doubtless overfed the cows and they are cloyed. No animal will do well when cloyed. The successful feeder knows that cows, young stock, hogs or poultry must be fed so they will want just a little more but not much. They must come hungry for the next meal. That is the art of feeding and it is acquired only by careful practice.

Something About Hog Feeding

We might presume that every farmer knows how to feed hogs but we presume too much. How frequently have we seen some one shoveling the corn into a dirty and muddy pen. The hog is not a dainty eater and we might think that is all right, but it is all wrong. The hog that may eat off a clean platter has health advantages over the one that has to "root hog or die" in the mud and filth to get the feed.

Under careful observations it was learned that hogs fed on a clean platform produced 10.6 pounds of pork from a bushel of corn, while those fed in the mud of a pen produced nine pounds of pork from a bushel of corn. In feeding 500 bushels of corn the clean platform method would net you over \$80, enough almost to build a mahogany platform. But any hard wood is all sufficient and need not cost above two to three dollars a hog and will last a number of years.

Feeding Wheat

Wheat feeding questions did not reach me for some time, but since wheat has come below the dollar and rye and corn are above the dollar several parties ask about feeding wheat. One inquirer says he can buy 60 pounds of wheat for 96c, while he has to pay \$1.10 for 56 pounds of corn. Wheat is an excellent feed for pigs and poultry with some corn. But wheat lacks palatability, as any one may know who has placed corn and wheat before the animals at the same time. Invariably under my observation the corn was taken first.

I have fed considerable wheat to the cows and young stock. As long as it constituted only a small part of the grain ration, possibly a fifth, it seemed satisfactory, but if I used it as liberally as I used the corn when abundant it was unsatisfactory for the cows and growing stock. I recall some experiment station work that also indicated the same results as noted in my feeding.

Cut 4 months
off your milking
calendar—and
still have
your milk!

WITH a Universal Natural Milker, you can milk your cows in from one-third to one-half less time than required by hand—equal to at least four months' milking time saved for other work or for more leisure in which to enjoy life. Furthermore, with a Universal you can do a better job of milking than is possible even under most ideal hand-milking conditions. You get all the milk, and get cleaner milk. There is no other milker like the

Universal natural Milker

Universals are used daily by more than 40,000 farmers, including many foremost certified dairymen. These users selected the Universal above all other milkers because of its unusual milking action—and its exceptional efficiency—the result of exclusive patented features.

The improved Universal pulsator and test cup (the most important parts of any milker) produce a soothing alternating action (milking two tests while the other two are being massaged), and operate on low vacuum (suction). That is why cows give down their milk readily to this natural milker which "milk" like the calf.

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THE MARIETTA SILO
Dept. F, Box 356, Marietta, Ohio

Potter County Agriculture Rises to the Occasion

(Continued from page 8.)

During the past ten years have spent more than \$750,000 for land lime. Their inventory of livestock and farm machinery stands now just about \$3,000,000 higher than at the beginning of that period. In order to make their barns and premises qualify for the New York City Board of Milk Inspection, the dairymen of Potter county spent just a little more than \$800,000 during the past three years.

"Five hundred and fifty-five farmers have purchased \$27,750 worth of radios. Twelve hundred and fifty farmers have purchased \$1,293,750 worth of automobiles, \$225,200 worth of trucks, and \$197,000 worth of tractors. The installation of water systems, heating plants, and lighting plants in farm homes in Potter county has increased more than 300 per cent and represents an expenditure of over \$100,000.

"Summing up these expenditures the farming industry has paid approximately \$6,493,700 for land improvement, equipment, livestock and necessary conveniences. It has provided the living for the owners and their families and paid for the necessary up-keep of the buildings and equipment.

Record Keeping

"Are those evidences of financial gain and development sufficient to justify your unqualified support? Do each of you value the investment that you have in the enterprises in this county? If so, then let's make them bigger, better and more efficient.

"Production record keeping must be expanded to more farms. More herds must be in cost-testing associations. We must rapidly increase the number of high producing pure-breds. We have increased the average milk production per cow more than 60 per cent in 12 years. We must make an equal increase in the next five years if we are to meet the competition which we are facing.

"We must develop an active organization to establish and enforce standards of grades for Potter county potatoes. High quality potatoes are grown in Potter county. A growers' organization with highly graded stock will bring competitive buyers and a premium price. Such an organization is also necessary to prevent ambitious commercial organizations from exploiting undesirable sources of seed potatoes.

Needs Advertising

"Potter county products and Potter county advantages must be advertised, and only an active county-wide organization can properly do that job.

"Here is an industry that is rapidly increasing its annual net financial returns under a definitely planned program of development. That increased financial return is finding its way to every business place in the county. Is it worth while for you merchants and professional men to encourage more farmers to take up those improvement projects? Are you farmers who have been using these proven methods sufficiently convinced of their value to interest your neighbors in using them? Has this adopted program of development shown sufficient results to inspire the other public agencies to subscribe to its principles and direct their efforts toward its completion?

"If I have been able to convey one thought, please remember this: two pairs of dragging feet can check the speed of a coasting sled more than all the hilarity and enthusiasm of a whole crowd can possibly overcome.

"The future of Potter county remains a challenge to our faith, the past a record of our efforts, but the present commands unity of action on principles that are proved."

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superiority of Rapid-Flo, very likely your neighbors have. Let them tell you how good it is, how consistently, swiftly, efficiently it performs its daily task.

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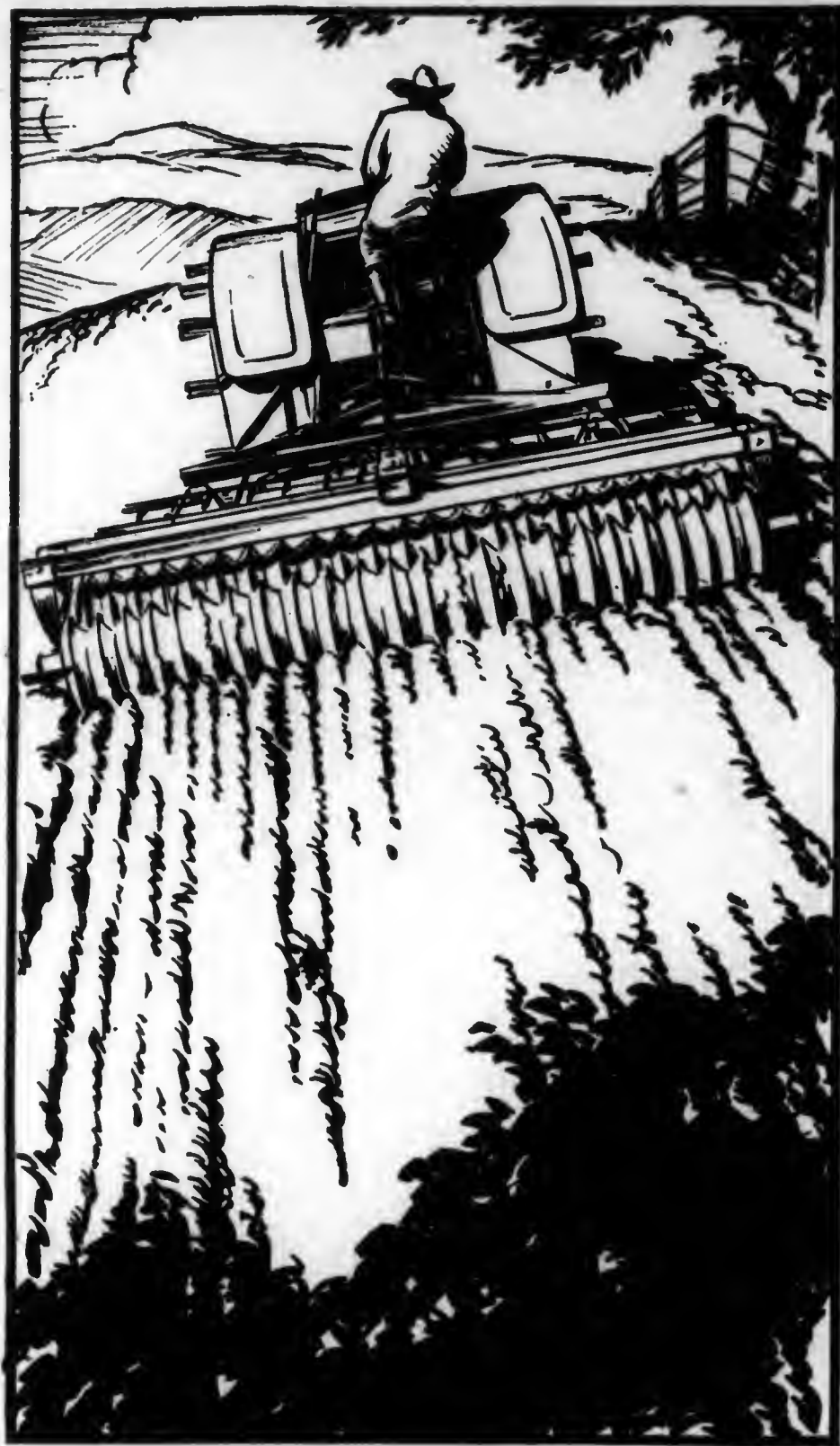
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For Sale Two Registered Jersey Bulls, one year old, ready for light service. Oxford and Golden Males. Price breeding. Dams are now on official test and going strong. Federal Accr. Herd. **H. E. Athey**, Keedysville, Md.

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REGISTERED JERSEY BULLS and heifers, 6 to 12 months old, accredited herd. Write us. **J. M. MAIN & SONS**, Shippensburg, Pa.

HOLSTEIN BULL, born June 1, 1929. Sire a grandson of Grimsby Scamtion and from an 1100 pound cow. Dam is large rugged cow whose production record was awarded prize money by the Holstein Association. Price \$150.00 graded F.O.B. A clean herd. **CRAOLA FARM**, Clinton, Pa.

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REGISTERED BERKSHIRE PIGS, prize winning stock. Unrelated pairs. **FRED HILMER**, R. 1, Millville, Pa.

BERKSHIRES Boars ready for service, saw pigs, 10 weeks old. **J. L. WYKE**, Jeannette, Pa.

Duroc Jerseys of the very best breeding. All stock guaranteed. Pedigrees free. **IMMERORUN FARM**, Loretto, Pa.

DUROCS Jr. and Sr. boar pigs, nine head sows, young pigs, best blood lines. Auction, 2 P. M., April 12th. **FREDERICK A. ROTH**, R. 2, Easton, Pa.

QUALITY CHESTER WHITE (all boars and gilts. Chester immune. Shaded C.O.B. on approval. **A. H. Crowner**, Mt. Sterling, Ohio

CHESTER WHITES—Big type Champion blood, with a record of heaviest C. White litter in state. **L. C. Corman & Son**, Beech Creek, Pa.

HAMPSHIRE Pigs 8 to 12 weeks old. Both sexes. Reg. Free. **J. J. Railing**, R. 2, Shippensburg, Pa.

Feeding Pigs, 15 to 20 lbs. \$4.50 to \$5.00 according size. Truck delivery on large lots. Mostly Poland-Chinas. **Stanley Stort**, Chewsville, Del.

GOATS

Registered Swiss & Nubians, from heavy milking thoroughbreds. Big Bucks and does; jacks, rams, herds. **Lloyd B. Goldsborough**, R. 2, Minton, Pa.

Readers' Views

Experience with Moles

In the edition of Pennsylvania Farmer of March 8th Mrs. R. M. complains that moles or ground mice destroy the plants in her cold frames. She says that she has tried poison but they will not touch it. These pests are indeed a problem. A mole will not touch anything that is not alive. Moles live mostly on angle worms. Meadow mice do not dig runs for themselves, but follow the moles, so that if you put poison into the runs you can poison them. But they do not do much harm to hotbed plants, with the exception of cantaloupes or watermelons if you raise them under glass. The only way to keep moles out of cold frames is to use closely-woven wire. If the frame is small, say eight or eight sashes, it is best to dig out the ground say 18 inches below the surface, put your wire flat in the ground and fill the hot manure on top. It must be heavy wire; light mosquito netting will not last more than one or two seasons. But I have some heavy iron wire that I put under ground ten years ago and find still serviceable.

Watches His Step

If the cold frame yard is large it will pay to dig a trench around it—say ten inches deep—and put a strip of wire perpendicularly under ground. When the beds have been made, and most of them are by this time, you can drive the moles away by pushing a stick the size of a broom handle to the bottom of the run and pour pine or coal tar into the hole.

A mole does not like to soil his feet and will avoid a run he thinks objectionable. Even blackstrap molasses will drive him away, and I have been told that he turns up his nose at the smell of synthetic camphor balls. Of this I am not certain, since I always used tar; it is worth trying.

I have often read that moles will not pass a place where castor beans are growing, but I am doubtful about it, since I did see a mole run within a couple of feet of a castor bean plant. It is hardly worth trying the experiment for the moles do most of their damage in early spring and, since the castor bean is an annual, the top soil is dry and warm when it has developed a root system large enough to influence the smell of the ground. By that time the moles have followed the worms to deeper parts of the soil and, except after heavy rains, their runs do not show on the surface. It would therefore not be worth while to plant a castor bean hedge around a hotbed yard.

Working Hours

One thing can be said about the moles, they seem to have a perfectly organized union established among themselves. I have not paid attention enough to the subject to find out of how many hours their working day consists but I am certain they all conform strictly to rules. You will always find them very busy from four a. m. to eight a. m. Then follows a night- or rather day-shift. This lasts till about ten a. m. Then work commences again and lasts till 12 m. I have not observed them close enough to know how they divide the other part of the day.

Of one thing I am certain they are a close corporation, like the railroads, and have always stuck to standard time. Daylight saving has never appeared to them, perhaps because there is no daylight to save where they work. How they are able to measure the time when the sunlight does not penetrate the ground and when their eyes are so poorly developed that they could not perceive it if it did, is something that has always puzzled me. I must say, too, that I have always admired them, for though they possess not as many laws as we people who live above the ground, yet they strictly observe those they have.

Of course, it is possible to catch

Women Drivers

NOTICED in the Pennsylvania Farmer that S. W. does not like the women car drivers. I have driven for 12 years, was car agent for some time. I never killed or crippled any one, but always take my share of the road.

I can drive where any man can drive a car. I always put my own tires on. I can repair my own engine. It just acts kind of funny. I believe I could repair the car better than S. W. could. As to speeding, S. W., don't sleep on the highway. Step on the gas, but watch your speedometer. A cop never bothers me one bit. I believe S. W. would not find fault with me. He could get to smile once in a while at a lady. Then he would cheer up. If he lingers long enough it may be we will have women cops in the future. **Elsie Shams**, Lycoming county, Pa.

To Boss a Bull

TAKE a rawhide about 18 inches long, braid six inches, tie to a stick two feet long. When your bull gets to be six months old use this lash once a day. Talk to him, make him obey, let him know that you are his master. When you let him out always have the lash in your hand. He will not turn on his master. **D. R. Brensinger**, Schuylkill county, Pa.

Dope for Crows

I HAVE always had trouble with crows taking up corn in the spring. Some years my corn was badly damaged in this way and even almost ruined if the field were located near the woodland.

Last year my nearest neighbor and I both procured a preparation made to keep crows off and applied it to our seed corn before planting.

My neighbor planted a few days before I did. He reported that the crows went to his corn field and took up a few hills, only one or two hills in a place. They left his field and did not bother it any more. They came to my field and sampled a few hills, found it not to their liking and left it, no doubt to search for corn with a more agreeable flavor.

Other corn fields in the community were pretty badly damaged by the depredations of crows. I had always before trusted to catching a crow in a steel trap and scaring them away in that way, but often there was much damage done before I could catch the crow. **A. J. Legg**, Nicholas county, W. Va.

Keeps Axe on Handle

It is always annoying and often dangerous to have the axe fly off the handle while it is being used. During dry spells the handle gets loose and before one is aware of it off flies the axe.

I worked the left glove of a new \$1.50 pair of gauntlet protectors to shreds one afternoon. The axe persisted in coming loose and I rammed the handle so hard against the butt end of a post repeatedly that the end of the handle turned back and splintered. The shattered end cost the loss of the glove.

I know better now. With a center punch, a brace and bit for boring through metal and a tiny wooden peg, all loose axes have come to be a thing of the past. A tiny hole will answer the purpose during the life of the axe and will be ready to hold any number of handles that may be required. **Robert I. Weigley**, Lebanon county, Pa.

Assure yourself of that extra \$20 on 20 cows it means \$400 more

DON'T bank too much on fresh pastures. Cow profits are not made in one or two months but over the full milking period. Invest now in late Summer, Fall and Winter milk. The extra milk in the pail means \$20 per cow for the season. And that extra milk comes from full feeding.

Sack-of-Silage supplements early pasture—and gives it a better chance to last through the hot summer months. It's sweet, clean and adds just what the grass lacks—helping you get that extra milk. Better herd health, better profits. Write today for our cow book that tells the complete story.



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Freshened August, 1929—February, 1930. Official tests here show:

10 cows over 50 lbs. 4% daily.
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12 1st-calf heifers, milking 20 to 35 lbs. daily under adverse conditions.

These cattle had a long, hard journey, 24 head being put in N. H. and Canada for our 1929-30 business after 4 weeks' inspection covering 8 or 10 states and Canada. Balance, our breeding, but kept in mountain pastures, heretofore. Next tests should show 22 cows, 10,000 to 15,000 lbs. 12 cows 8,000 lbs. at least, all 4% milk.

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All negative to abortion Bang test. T. H. free.

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When writing Advertisers please mention The Pennsylvania Farmer

THE YOUNG PEOPLE

Why I Am Staying with My Dad

Won't Desert the Colors
First Prize

I AM a farmer boy, seventeen years of age, and I am going to try to tell you why I am staying on the farm.

We have fifty acres in Western Pennsylvania and we grow mostly fruit and truck for market. In the first place, I like farm work. I have my own team and do the plowing and other team work. Dad just tells me what to do and then does not interfere. He also tells me not to work too hard.

I get all I can eat, all the good clothes I need and lots of time for fun and play. I never need to ask Dad for spending money for he always sees that I have plenty. My bank account is slowly climbing, too.

I think a man can make as much money farming as he can in any other work; that is, if he knows how

as much as he wants; go when he feels like it and come back when he gets ready.

Of course, when the boy's pig becomes his father's hog and his colt becomes his father's horse, that makes the boy feel like wishing for something more than the farm.

When fall comes and the crop is gathered and stored away for the winter's use and the ground is white with snow, the farmer sits by the warm stove enjoying what he worked so hard for last summer. The man in the city must go to work, rain or shine, and whether he feels like it or not.

No city life for me!
West Virginia. Everett Craddock.

Greatest Business in the World
Third Prize

I BELIEVE that a boy can have a better time and be happier at home in the country than anywhere else. If a boy stays with his parents and does what he can to make them happy and to make his home a pleasant one to live in, he is sure to be a happy boy and his reward is certain.

Agriculture is the greatest business in the world and I want to help Dad make the farm produce bigger crops by learning better ways of farming as I go through school.

The farm has many inducements and advantages for me. I have splendid parents, a good place to sleep and three good meals a day. If I get sick I am well cared for and among my own people. Many boys who left the farm are today walking the streets looking for work with no prospect for the future.

So you see how it is. Dad and the farm need me and I need the farm and Dad—so I've decided to stay.
West Virginia. Victor Rinehart.

Picked Paragraphs

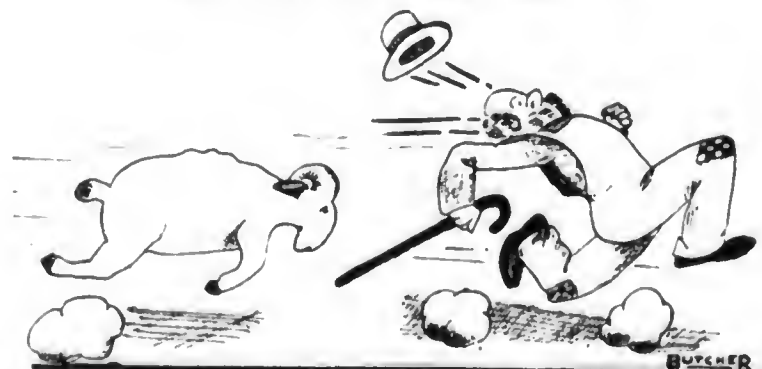
I DON'T know how other people are but I like to eat at my mother's table better than at some one else's. If every boy knows what is best for him he will stay with his Dad.
Hershel H. Gardner.

His Own Boss
Second Prize

I HAVE often heard that a farmer is the only independent man in the world and I believe it. I live on a small farm back in the hills of West Virginia, out of sight of everything but what can be seen in the valley. Of course that couldn't be much. Sometimes an airplane can be seen floating across the blue on its solitary way.

The farm sometimes seems a discouraging, unhappy place, but in thinking over the matter it is the only place for me to live. The farmer raises nearly everything that he needs—his labor is about all that it costs him. When he gets up from the table he knows where the next meal is coming from and doesn't have to dig down in his pocket to pay the grocer. He can eat when he pleases.

WHEN THE PET LAMB GREW UP



GRAND-DAD LOST HIS RHEUMATISM-----AND HOW?

Second Prize
B. Butcher, West Virginia



WHEN PET LAMB GREW UP

First Prize
Mercy Clark, Pennsylvania

Read About New Contests

Dear Boys and Girls:

ABOUT the hardest job the Young People's Editor has is to find space to print all the really good letters and cartoons which find their way to this desk. There really isn't anything we can do about it unless the Editors get big hearts and give us two pages instead of one. You might write a letter and tell them how you feel about that.

This week we read why Leonard Koedel, Everett Craddock, Victor Rinehart and some others are going to stay on the farm. First and second prize cartoons show Mercy Clark's and B. Butcher's ideas of what happened "When the Pet Lamb Grew Up." Next week there will be more cartoons, three prize letters on "Why I Am Leaving the Farm" and "What Manners Mean to Me." Don't miss reading these.

Any reader of the Young People's Page may enter the contests which are announced from time to time. Ten fine prizes will be given for the best letters on the following subjects—

1. Why I Want to Go to School.
2. Why I Don't Want to Go to School.
3. Cartoons—"The Last Day of School."

All letters must be written with ink. Use white, unruled paper and India or black ink for the cartoons. Give your name, address and age when submitting letter. Contests close April 18th.

Send all letters to Contest Editor, Pennsylvania Farmer, 7301 Penn Avenue, Pittsburgh, Pa.

Young People's Editor.

This year Dad is going to give me some ground and I am going to plant potatoes and see if I can't raise better potatoes than Dad—so why should I leave the farm? James Hampton.

I am now living in the city but wish I were back on the farm. If my Dad were living that is where I would be. It is the best place for a boy. He can hunt, fish and swim without anyone to stop him. He can have all the pets that he wishes and take a horse-back ride after the cows every day. In town you must go to the store

for milk and then it doesn't taste "Old Molly's." When I get through school my mother and I are going back to the farm. Cecil Danley.

If I stay at home I can have a calf but if I leave I will have nothing. Junior May.

COLORING THE SEVEN DWARFS

Esther McCarriker, Esther Mae Mott, Jean Kagurise, Eva Arnold, Betty Kremer, Ruth Yodock, Solveig Mykkelien, Anna Hoffmeister, Evan L. Kendig and Bell.

Little Folks' Corner

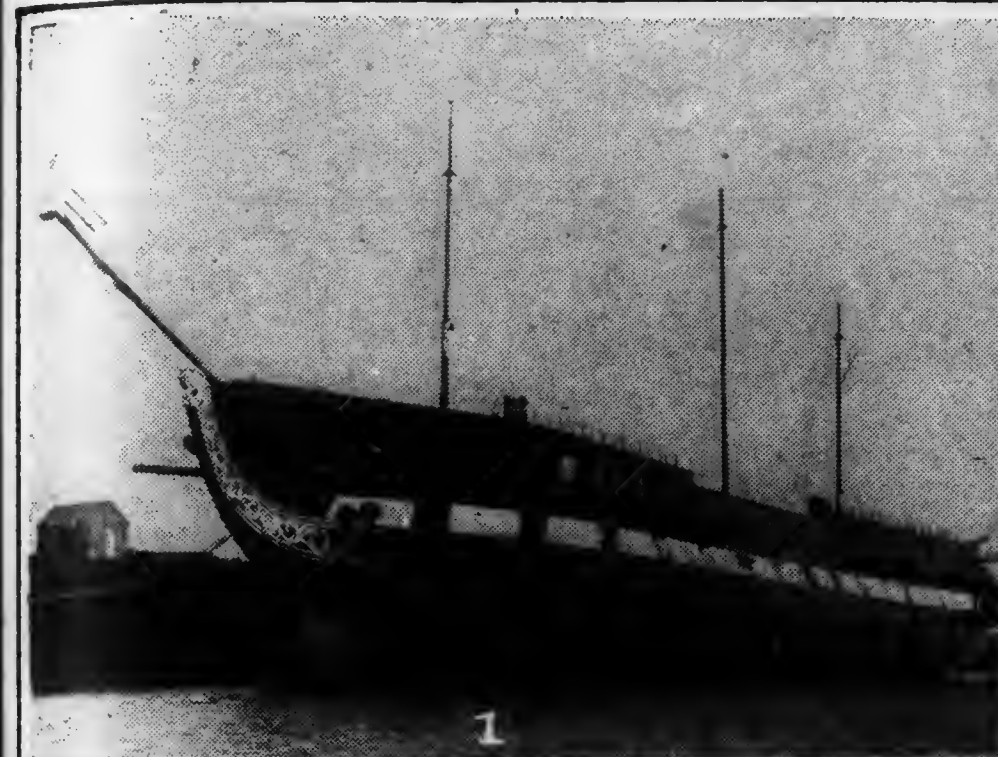


At the Marquardt Party

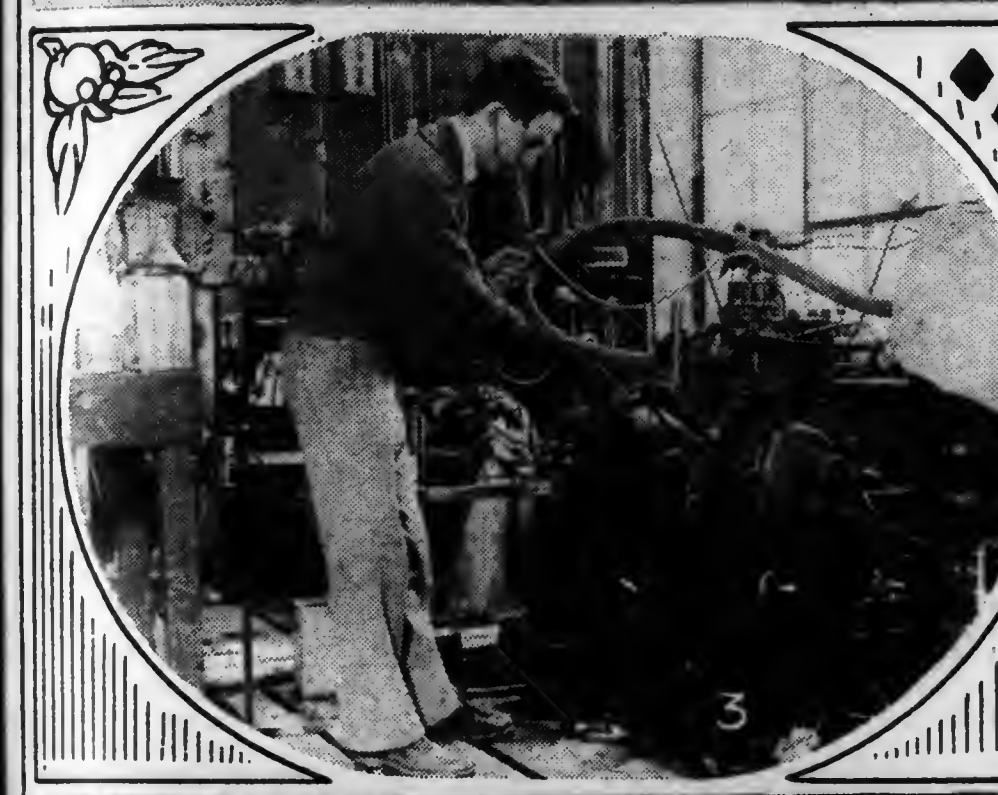
By Barbara Ellen Shoemaker, Bedford county, Pa.

This lovely lady stopped off at our office long enough the other night her way to a party to let us take her picture for you to color. Do your best, send your coloring right back to Little Folks' Corner, Pennsylvania Farmer, 7301 Penn Avenue, Pittsburgh, Pa., and we'll hustle around and ten nice prizes for the best.

PASSING EVENTS IN PICTURES



1



3



2



4



5



(Copyright by Underwood & Underwood)

1. Boston, Mass.—Photo shows the famous frigate Constitution ("Old Ironsides") which was set afloat at the Charlestown Navy Yard here and withdrawn from the drydock in which she had been under reconstruction during the past three years. A thousand or more school children and other spectators looked on.

2. New York City.—Little Mary White, 5, with some of the prize rhododendrons at the 17th International Flower Show at the Grand Central Palace.

3. While the average motorist would be more inclined to stuff his ears with cotton to silence fuel knocks in his engine, Uncle Sam's engineers at the Bureau of Standards in Washington pursue a different course and patiently

listen to them with a stethoscope in their tests to secure a standard of comparison for various motor fuels. The tests are being made by a cooperative committee of engineers representing the automotive and petroleum industries.

4. An especially posed and approved portrait study of Sir Ronald Lindsay, distinguished English diplomat, who has recently arrived in Washington to assume his duties as British Ambassador.

5. Chicago.—The first picture of the new trans-neptunian planet discovered by the Lowell

Observatory, obtained by Professor George Van Biebroeck of Yerkes Observatory of the University of Chicago at Williams Bay. The planet is indicated by the arrow. To the right is the nearby star Delta Geminorum, which is easily visible to the naked eye. The halo surrounding the star Delta was caused by reflection of its light on the backside of the plate.

The light of the planet is twenty-five thousand times fainter than that of the star Delta. This picture was obtained with the 24-inch reflector and is from a 30 times enlargement.

6. Lawrence, Kansas.—Photo shows to left of center F. L. Hunt, piano tuner, with his collection of structures (many of them made of spoons) for the comfort and well-being of birds.



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Red Raspberry—Youngberry (Young
Dewberry)—New Logan Black Cap
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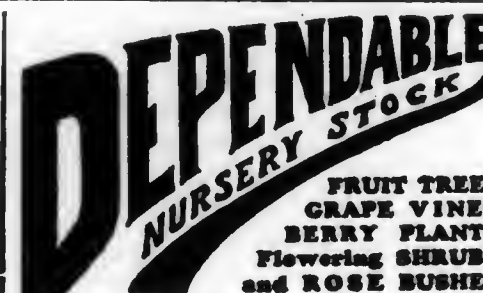
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Elberta, Hale, Rochester, South Yellow, St. John, 2 to 4 feet, 20¢ each; 2 to 3 1/2 feet, 25¢ each. 12.00 per 100.

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1 year, 10¢ each \$5.00 per 100
2 years, 15¢ each \$6.00 per 100
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Strong Plants, 25¢ each.
Reacts large, firm, quality good, very productive, ripens early, brings high price on market. Originated in Canada. Our plants come direct from originator's farm, Prof. Hecox, Canadian Horticulturist.

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The Story of Woodbine Farm

By W. D. ZINN

(Continued from Last Week.)

I NEVER met Prof. Latta, who was Director of Institutes during the two years I was in Indiana, but I have always felt very kindly toward him for the interest he took in my work. If a hard trip was to be made I always had a kind letter from him telling me at what hotels I should stop. At one time he wrote, "I am sending you to They are all Germans there and I hope you will be able to interest them." I arrived at nine o'clock a. m. The hall was already full of farmers. Again I was the only speaker. I spoke twice before noon and twice in the afternoon. When I was closing my last talk in the afternoon I happened to look at my watch and saw that it was four o'clock. "I beg your pardon, friends," I said, "You people are dairymen and it is now milking time." An old farmer looked up and said, "Oh! We are not tired. If you are not too tired we would like for you to stay another hour." I could not get away and so I stayed until five and talked with them.

Ohio a Leader

Of the nine states in which I have done institute work, Ohio, under the direction of the late F. L. Allen, has been the best organized and the farmers take the most interest. The institutes continue for two days, and five sessions are held, making twenty sessions during the week. I was out one week when our average attendance was three hundred and seventy-five people for the fifteen sessions. At Smithville, Wayne county, we had an average attendance of 580 people at the five sessions and at Loudonville, Ashland county, we had an average attendance of 480 at the five sessions. Institutes have been held for more than forty years in Ohio, and yet the interest is as good as it was twenty years ago, or better. The state holds 352 state-aid institutes each year and besides these there were over 400 independent institutes held last year.

It was my privilege some years ago to spend four weeks in the bluegrass region of Kentucky in institute work. The meetings were poorly attended in many places. The Lord has done so much for these people that they do not feel that it is worth while for them to know so much about soil improvement, crop rotation, etc. However, many of these farms are being well managed, and the farmers are prosperous.

It was my pleasure to visit the state of New Jersey two winters in succession, visiting each of the twenty-three counties. The late Franklin Dye was Secretary of the Board of Agriculture, and had charge of the institute work of the state. While in the state I had the pleasure of sitting at the feet of the late Dr. E. B. Vorhees, and learned many lessons about soils, fertilizer and lime from him. Dr. Vorhees ranked high as a chemist and as an authority on these subjects. If I have been helpful at all to my fellow farmers it is due largely to the fellowship I have had with such men as Dr. Vorhees, Dr. Charles E. Thorne, Professor Alfred Vivian, Dr. Cyril G. Hopkins, Mr. Alva Agee, Professor T. C. Atkeson, Dr. H. P. Miller, Mr. T. B. Terry, Dr. W. I. Chamberlain and Dr. Firman E. Bear.

The Sunny South

While traveling in West Virginia in institute work I was favored by having as my co-laborer the late Edward Van Alstyne of New York, and our friendship for each other grew very warm. Later Mr. Van Alstyne became Director of Institutes in



**This Week's Special
8 Evergreens \$1.80**

2 Norway Spruce, 2 Arborvitae, 2 Austrian Pine, 2 Juniperus Communis.
These trees are 5 to 6 years old, all once transplanted in the nursery.
Order NOW for Spring Delivery

"God Tree of Himalayas" \$1.10
"Cedrus Deodora," the world's most beautiful evergreen. Silvery blue upper. Trees 1 to 1 1/2 feet, each \$1.10; 1 1/2 to 2 feet, each \$1.75.

Magnolia Tree, 1 to 1 1/2 feet, 2 for \$1.10; 1 1/2 to 2 feet, each \$1.75.
Hardy Azalea, Coral Pink, Nodding, early bloomer, each \$1.10.
Hills, orange, beautiful, 6 for \$1.50.
Rhododendron, in red, pink and purple, large plants, 3 for \$1.50.
Hardy Hydrangea, Nice Blue, 2 for \$1.10.
New Wonderful, 2 for \$1.10.
Japanese Barberry, lovely plants \$1.10.
Colorado Blue Spruce, 7 years old.
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Special—15 Hardy Perennials, \$1.50.
A selection for all summer bloomers.
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Pink, bronze, yellow & white, Hardy.
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New York and invited his West Virginia friends to do institute work in the state. I recall having spent the part of a certain winter in Virginia in institute work. Up to the end of January, I had seen no snow but little frost, most of my work being in the southern part of the state. On the morning of January 6th I took a sleeper for New York. I saw the state for New York. I saw the capital in Richmond, and people were sitting around the grounds enjoying the beautiful sunshine.

Not a Joke

I took a sleeper at Richmond that led me into New York City at six o'clock in the morning, but just a little too late to catch the train that would have taken me to the St. Lawrence River, in the northern part of the state. At six o'clock that evening I took a sleeper for my destination, arriving at six a. m. the next day where I found the thermometer at 25 degrees below zero. It was quite a change, but I lived through it and spent, at that time, six weeks in the state.

This was in the days when every hotel had a saloon in its lobby. Many were the nights when I was forced to sit and hear a great variety of stories, some interesting, others distastefully vulgar and profane, told by those who stood by the bar and drank. It has been a pleasure in recent years to stop at hotels and see and hear some of these things. The institutes in New York at that time ranked possibly second to Ohio. The entire time was taken up with lectures and discussions. No time was given for entertainment. The speakers in the evening gave nothing but practical talks, and only those attended who wanted to know more about farming. Aside from my own state, there is no state I have covered so thoroughly as Virginia. For years the railroads of the state furnished the trains and equipped them. The Department of Agriculture furnished the speakers. These trains covered every mile of railroad in the state. Hon. G. W. Koiner was the commissioner, and a very agreeable task-master did he prove to be.

No Place Like Ohio

Institute speakers are often very good story tellers. One such was J. F. Gordon, of Ohio. He had a story that he sometimes told of a boy who was passing a church in a city in Ohio, and hearing singing on the inside went in, taking his seat near the door. This was a revival meeting, and the boy became interested. He went up closer each night toward the pulpit. Saturday night came, and the boy was on the front seat, and the preacher after speaking of the great revival they had enjoyed said, "All who want to go to Heaven stand up." All arose except the boy. Then the preacher said, "All who want to go to hell stand up." The boy still remained seated.

Turning to the boy, the preacher said, "You do not seem to want to go anywhere, please explain." The boy arose and said, "I do not want to go either place, because Ohio is good enough for me."

Mr. Gordon speaking on one of these agricultural trains in Virginia was telling this story to an audience of colored people. When he said, "All who want to go to Heaven stand up," every one in the car stood up. Mr. Gordon told his audience to be seated and went on with his speech, not attempting to finish the story.

The colored people are noted for their responsiveness to the speaker. On one occasion I was speaking of soil improvement to a crowd of colored people, and when I denounced the practices of leaving the land bare through the winter, and of the one-crop rotation, a number of darkies in the crowd continued to exclaim, "That's right, Boss, give it to 'em; That's right, Boss, give it to 'em; That's right, Boss, give it to 'em."

(To be continued.)



THE CASE-OSBORNE mower—popular with farmers for many generations—has the steady power and drive to slash right through the toughest going and keep it up indefinitely.

The secret of this unusual ability is the internal gear type of drive which insures steadier, more positive power because at least two and one-half teeth on the counter shaft pinion are in mesh with the drive gear all the time. This is impossible with an external gear.

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Grow them for more profit. Plant our big, healthy, true-to-name fresh dug plants. Satisfaction Guaranteed.

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| Marston E. B. (per) | \$1.00 | \$1.75 | \$2.50 | \$3.00 |
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| Bo Joe (per) | .60 | .85 | 1.50 | 2.75 |
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| Cooper (per) | .60 | .85 | 1.50 | 2.75 |
| Big Late (imp.) | .50 | .75 | 1.25 | 2.75 |
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Early, Clarage and Early Golden Sunrise. Excellent yields and sure to ripen. Buy \$2.25 per bushel or 1000 seeds per bu. Also SIGNATURE Seed Oats, Blue-plumage Hailers, Marquette New Beans, Improved Seed Potatoes, Alfalfa, Clover and Grass seeds. Write for samples and circular.

THEO. BURT & SONS, Box 50, MELROSE, OHIO

Please Mention Pennsylvania Farmer When Writing to Advertisers.

Farmer's Business Letter

BUSINESS conditions continue to be the important factor in livestock trade. Reports this week on the trend of business are on the weak side.

The Hog Situation

Hogs weakened off early in the week, but recovered at the close on very light runs. Short supplies were the only element of strength in the market. The combined total at the eleven leading points was 465,000, against 518,000 last week, 473,000 the same week last year and 529,000 two years ago. Average price was \$9.85 this week against \$9.90 last week.

The futures market was in the main a little stronger than last week. May lights sold at \$10.45@10.60, and September lights at \$10.40@10.65. May heavies sold at \$9.75, and September heavies at \$10. These prices are 10 to 35 cents above last week.

The first month's business of the futures market amounted to 184 cars sold, representing 13,250 hogs, weighing 3,036,000 pounds. Hogs actually delivered on contracts amounted to 315,470 pounds. Prices have ranged from a high of \$12 per hundredweight for September lights down to \$9.50 on March heavies.

Lambs Again Lower

There was a further decline in lamb prices this week, the average price for the week dropping to \$9.30, lowest since November, 1921. Last week's average was \$9.75. The weekly average price is now \$7.60 under a year ago. It is entirely a matter of heavy marketing, with no relief in sight.

The run here was 92,000 this week, against 89,000 last week. A year ago this week the run was 67,000 and the year before that the same. The difference between '29 and '30 tells the story, and it is not for one week alone, but week after week. Western feeders contributed 60,000 head this week. Nor are they through yet. In the meantime the springers are starting to run, Kansas City having some Arizona spring lambs this week that sold at \$13.

Heavy Steers Higher

The spread between heavy and light cattle has widened further this week. Compared with the high time last week yearlings are as much as 75 cents to \$1 lower, and heavy cattle show a gain of 50 to 75 cents during the past two weeks. It is all a case of relative supply. Heavy cattle of quality are scarce, while the supply of light steers is liberal.

Butcher stock has shown little change, except good, light heifers, which have declined with light steers and about as much. Light marketing is the only thing holding the cattle market up.

The run here this week totaled a little over 30,000, about the same as recent weeks, and in line with a year ago. To date twenty markets have had just a few more cattle this year than at the same time last year. Both this year and last, however, are well under steepers.

Top steers sold at \$15 this week, averaging 1,444 pounds. Best lights brought \$14.35, with top heifers at \$13. Average steer price this week was \$12.30, comparing with \$12.40 last week and \$13.15 a year ago.

Beef at wholesale is just a little

higher than a year ago. The market for the coming summer will depend entirely on business conditions.

Weather Grain Factor

For the time being the weather has displaced the Farm Board as the principal factor in the wheat market. Prices advanced this week on reports of dry weather in Kansas-Oklahoma territory, and lack of moisture for seeding in the Northwest. Both domestic and foreign buying was stimulated, and the price gain was around 10 cents over last week.

Private crop reports put the winter crop at around 560,000,000 bushels, a little less than a year ago. These reports also indicated quite a substantial reduction in spring wheat acreage, no doubt gratifying to the Farm Board. Our reporters, experienced in crop estimating, send in estimates which would point to a reduction of fully 10 per cent of the wheat acreage in Minnesota and Montana, about 7 per cent in South Dakota, and 9 per cent in North Dakota, Nat Murray stated. This he compared with the government's report of 5 per cent decrease, a figure secured from questionnaires sent to 50,000 farmers in February.

A Plan to Store Wheat

The Farm Board's Grain Stabilization Corporation announced a move to

work out a cooperative plan with millers in storing the surplus crop and to export American wheat in the form of flour.

"The Grain Stabilization Corporation," the statement said, "has placed before the wheat flour milling industry a plan which it is believed will be helpful in accomplishing the objective of the corporation and at the same time increase the operations of the mills. Increased operation in turn stimulates the demand for cash wheat, increases the available supply of mill feeds, and to some extent increases the consumption of cotton used in bagging mill products. The plan makes available to the corporation a large amount of mill elevator storage room, otherwise idle at this time of the year. Mill storage, however, will not be used to such an extent that it will interfere in any way with the movement of new crop wheat, at or after harvest time."

The plan provides, first, for an arrangement whereby the stabilization corporation may store wheat with the miller, which the miller may later purchase as his needs require, and second, a similar arrangement in regard to the storage and sale of wheat to cover export sales of flour.

Farm work is well advanced everywhere, and with favorable weather from now on corn will go in early. In some places there is doubt about oats seeded two or three weeks ago, on account of the snow and cold since then. Chicago, April 8, 1930. Watson

LIVESTOCK

PITTSBURGH

Cattle

Monday's supply was light, about 30 carloads. Good weighty steers were not numerous and were all wanted at an advance of a quarter or so over last week's prices. The good fat handy-weight steers were also stronger, but ordinary light butcher steers showed little change. One load of weighty steers brought \$13.25 and others \$12.25@13.10. Useful weighty steers but a little plainer went at \$12.25@12.60. Good fat handy-weight steers brought \$12.40@12.75, with fair fleshy kind \$11.75@12.00, ordinary around \$11. Useful light killers went at \$11.25@11.50, ordinary kind \$10.50@10.75 and common on down. No stockers or feeders were offered. A few choice cows brought \$8.75@9 but not many were good enough to beat \$8. Canners went at \$5@5.50, late sales largely around \$5. Bulls were stronger, best heavy going at \$8.50@8.75 and best handy-weights \$9. Ordinary to fair bolognas brought \$7.50@8.

Prime fat steers..... \$13.00@13.25
Choice steers, 1,200 lbs. or over 12.60@13.00
Good to choice, do..... 12.20@12.50
Fair to good, do..... 11.50@12.00
Plain heavy steers..... 11.50@12.00
Choice handy-weight steers..... 12.50@12.75
Good butcher steers, 1,000 to 1,150 lbs..... 12.00@12.25
Fair to good, do..... 11.50@12.00
Ordinary to fair, do..... 11.00@11.50
Common, do..... 10.00@10.50
Good light butcher steers..... 11.75@12.25
Fair to good light steers..... 11.25@11.75
Common to medium, do..... 10.50@11.25
Inferior light steers..... 9.00@10.00
Feeders..... 10.00@11.50
Stockers..... Nominal
Choice fat heifers..... 11.00@11.50
Good to choice heifers..... 10.50@11.00
Fair to good heifers..... 9.50@10.50
Common fair heifers..... 8.00@9.50
Choice fat cows..... 8.75@9.00
Good to choice fat cows..... 8.00@8.75

Fair to good cows..... 6.50@7.75
Common to fair cows..... 5.75@6.50
Canners..... 5.00@5.50
Fresh cows, calf at side..... 6.00@15.00
Choice handy butcher bulls..... 8.50@9.75
Good handy bulls..... 8.25@8.75
Fair to good bulls..... 7.75@8.25
Common to fair bulls..... 7.25@7.75
Inferior bulls..... 6.00@7.00

Monday's Representative Sales

| No. | Wt. | Pr. | No. | Wt. | Pr. | No. | Wt. | Pr. |
|-----|------|-------|-----|------|-------|-----|------|-------|
| 15 | 1221 | 12.25 | 14 | 1282 | 13.10 | 17 | 1260 | 12.90 |
| 7 | 1109 | 12.75 | 14 | 1210 | 12.60 | 19 | 1473 | 12.40 |
| 10 | 1120 | 12.40 | 8 | 1203 | 12.35 | 10 | 1197 | 12.35 |
| 8 | 1196 | 12.35 | 8 | 1118 | 12.35 | 8 | 1006 | 12.35 |
| 18 | 1307 | 12.25 | 18 | 1195 | 12.25 | 10 | 1080 | 12.25 |
| 12 | 1025 | 12.25 | 12 | 819 | 11.75 | 14 | 1094 | 11.70 |
| 21 | 993 | 11.50 | 29 | 797 | 11.50 | 3 | 1066 | 10.75 |
| | | | 11 | 891 | 10.65 | | | |

Hogs

Monday's supply was about 30 double-deck carloads. Demand was good and trade active at an advance of a dime or so. Handy-weight hogs went mainly at \$11, with best heavy mixed at \$10.75 and heaviest of around \$10 lbs. at \$10.50. The good 140@150-pound hogs went in with handy weights, light going at \$10.50 large. Light Yorkers, 125-150 lbs., 10.90@11.00. Heavy Yorkers, 155-180 lbs., 10.40@10.50. Pigs, 90-110 lbs., 10.40@10.50. Roughs..... 8.75@9.00
Stags..... 5.00@7.00

Sheep and Lambs

The lamb market eased off last week, closing at \$9 for tops. Monday's supply of sheep and lambs was about 22 carloads, probably one-third of them sheep. The sheep market was very slow and lower, with \$6 the top for handy wethers. Some sheep were held above that figure but buyers refused to bid more. A few choice heavy ewes went at \$5, most of them for less. Good fat lambs were firm at \$9 per

cwt., but the other kinds were slow. Culls sold at \$5@7, largely for medium class mainly \$7.50@8.80. Lots of spring lambs arrived, the tops selling at \$16 per cwt.

Clipped
Good to best wethers..... \$5.75@6.00
Good mixed..... 5.25@5.50
Fair to good, do..... 4.50@5.00
Common to fair..... 3.75@4.00
Inferior sheep..... 3.00@3.50
Good to best lambs..... 7.50@8.00
Medium lambs..... 7.00@7.50
Culls and common..... 5.00@7.00

Cattle
Receipts on Monday were close to 1,000 head. Good veals were steady at \$11 per cwt., seconds \$11@11.50 and others making \$8@10.

CHICAGO

Cattle

Chicago, April 7.—Today's receipts totaled around 13,000 head. The market was steady with best steers at \$14.65. Common to fair steers..... \$8.75@10.00
Fair to prime yearlings..... 10.25@11.00
Fair to prime corn-fed..... 10.50@11.00
Cows..... 6.00@9.00
Heifers..... 7.50@10.00
Bulls..... 6.00@9.00
Canners and cutters..... 4.50@6.00
Stockers..... 8.50@11.00
Feeder and feeder heifers..... 8.00@11.00
Stocker and feeder cows..... 7.50@9.00

Hogs

Thirty-five thousand hogs, including 14,000 "directs," made up the supply. Market a quarter higher with top at \$10.60 and bulk selling at \$9.90@10.60. Top pigs..... \$9.75@10.00
Underweights, 140-160 lbs..... 10.00@10.50
Light, 160-180 lbs..... 10.40@10.60
Light butchers, 180-220 lbs..... 10.25@10.50
Medium butchers, 220-260 lbs..... 10.25@10.50
Heavy butchers, 260 lbs. up..... 9.75@10.00
Stags, 70 lbs. down..... 8.25@9.00

Sheep

Eleven thousand sheep and lambs were on sale. Market strong to 15c higher. Top lambs brought \$9.75.
Native lambs..... \$7.50@9.00
Western lambs..... 8.25@10.00
Shorn lambs..... 7.50@9.00
Feeding lambs..... 8.25@9.00
Wethers..... 6.00@8.00
Yearlings..... 6.00@8.00
Ewes..... 4.00@6.00

LANCASTER

Cattle

Lancaster, April 7.—Beef steers were steady to strong on the Lancaster market today. Early top was \$12.75, while the bulk sold at \$11.50@12.25. Bulls were slow, she-stock fully steady.

Calves were steady to weak with the vealers bringing \$14.50 per cwt.

Hogs

The market on hogs was steady to strong. Top hogs, in the 160 to 210-lb. class, brought \$11.85.

WOOL MARKET

While the Boston wool market continued quiet some business was done last week in fine and half-blood wools at fairly steady prices, and American was a purchaser at recent London auctions. The board market is said to be overshadowed by uncertainties concerning the activities of the National Wool Marketing Corporation, fearing that the policies of the organization will be unsettled and unsettling for a long time to come.

The Buffalo, Wyoming, pool of 65,000 fleeces is reported sold to a Boston broker at 23c, while some growers in bright wool states have been selling to dealers at 22c. Shearing is spreading and the clip movement is expected soon. Fine strictly combing at Boston is quoted at 32c, fine clothing 23@24c, half-blood strictly combing, 32c, half-blood clothing 27@28c, three-eighths combing, 32@33c, quarter-blood combing, 32@33c, clothing 29@30c, common and less 26@27c.

Philadelphia Produce Review

THE long expected advance in the potato market was realized this week when gains of 25c to 50c per hundred were registered in Philadelphia and the receipts of Pennsylvania potatoes dropped off sharply both by rail and truck. Most of the Pennsylvania stock offered at this time is in poor condition as is often the case near the end of the season. The buyers were taken readily and sales were reported at \$3.50 per hundred.

It is uncertain as to whether this advance is a temporary price flurry or whether it is more or less permanent. A few of the leading shipping states have a wider outlet for Maine's and other prices gained and the daily average during the week was around 800 tons, with heaviest shipments from Maine, Minnesota, Wisconsin, Colorado and Idaho. Recent local estimates show the remaining holdings in Idaho at 1,200 to 2,500 cars.

Apple Market Improves

The apple market continues to show improvement, and prices of good quality are higher. Shipments are light and the supply of eastern apples of good quality is limited in both Philadelphia and New York. There is a wide range in quality and this is responsible for what appears to be inconsistent price reports. Some 2½-inch apples are selling for less than 2-inch stock and quality to quality. Yorks sold at \$2.75 per bushel in New York and at most sales around \$2.25.

Green Vegetables

Receipts of green vegetables from early sections are increasing. Some of the nearby growers are making a make in cutting their spinach at this time. The plants are too small to sell well in competition with the supplies of Virginia and Texas. Turnip greens, collards, rape and field cress are meeting a fair demand but there is no uniformity in the quality or price. California and other distant areas are shipping asparagus in excellent quality but prices are averaging lower than usual for this early in the season. If this condition continues it is not likely that nearby grass will open the season at high prices.

Eggs and Poultry

The Philadelphia egg market during the past week was rather sensitive but the variations were not wide. At the closing of the week prices declined a half cent and the market was unsettled. Buyers were quick to sense the situation and held off, limiting their purchases to most urgent needs. Toward the middle of the week prices were steady to weak and the market was more satisfactory.

Fancy large white and brown near-by eggs were in good demand on the New York market and the market for the cheaper grades improved. Pennsylvania and New Jersey white eggs were from 27 to 36c per dozen, and from 27 to 33c and mixed colors 24@29c.

The live poultry market was weak during the latter part of the week and demand was slow. Fancy heavy birds were wanted but average receipts

were slow. The best broilers sold readily. Colored fowl brought 30@33c per pound, Leghorn fowl 28@27c, chickens 24@24c and broilers 25@42c. Fresh killed hot-house broilers were in more liberal supply and prices declined about 2c a pound. Prices ranged from 30@48c per pound.

Butter

The butter market improved during the week. The market opened weak on Monday but a better demand developed. Arrivals of fresh butter were rather liberal but there was a scarcity of the better grades. The larger users of storage butter have turned to fresh goods to supply their trade and this has helped to prevent accumulations.

W. R. W.

Produce Market

Quotations

PHILADELPHIA

Butter—Higher than extras, 41@44c; 92 score, 40c; 90 score, 37@37½c.
Eggs—Fancy select, 33@35c; extra firsts, 28c; firsts, 26½c; seconds, 25@26c.
Poultry—Live, fowls, 23@24c; chickens, 32@37c; old roosters, 20c; pigeons, pr. 48c; ducks, 25@27c; turkeys, 33@35c.
Fruits—APPLES, N. J. Dela. & Pa. bu. baskets, Yorks, \$1.50@2.25; Winesap, \$1.75@2.50; Nero, \$2.25; Stayman, \$2.25@2.50.
Vegetables—ASPARAGUS, S. C. doz. bunch crates, green, \$2.25@4. BEANS, snap, Fla. bu. imps., green, \$2.40. ONIONS, N. J. 100 bunches, \$1.15. SCALLIONS, 100-lb. sack, \$2.75@3. CARROTS, N. J. & Pa. ½ bkt., 75@90c. POTATOES, Pa. 100-lb. sack, best, \$3.15. SWEET POTATOS, Ohio, 100 lbs., \$1.15. RUTABAGAS, N. J. 100 bunches, \$1.15. CUCUMBERS, Ind. per doz., best, \$1.15. PEPPERS, Fla. bu. imps., \$2.25. PARSNIPS, Pa. & N. J. ½ bkt., 50@65c. RUTABAGAS, N. J. 100-lb. sack, \$1.50@2. SPINACH, N. J. bu. 65c; 1st. bu., best, 65@75c.

NEW YORK

Butter—Creamery, higher than extras, 39½@40c; firsts, 38@38½c; seconds, 32½@35c.
Eggs—White, nearby, average extras, 30@31c; extra firsts, 28@29½c; mediums, 27@28c.
Poultry—Live, by express & truck, 23@24c; chickens, 32@34c; broilers, 25@42c; old roosters, 15c; geese, 13@18c; ducks, 14@22c; turkeys, 30@42c.

LANCASTER

Butter—Country butter, 50@55c; creamery butter, 45@50c.
Eggs—Fancy select, 33@35c; extra firsts, 28c; firsts, 26½c; seconds, 25@26c.
Poultry—Live, by express & truck, 23@24c; chickens, 32@34c; broilers, 25@42c; old roosters, 15c; geese, 13@18c; ducks, 14@22c; turkeys, 30@42c.
Fruits—APPLES, N. J. Dela. & Pa. bu. baskets, Yorks, \$1.50@2.25; Winesap, \$1.75@2.50; Nero, \$2.25; Stayman, \$2.25@2.50.
Vegetables—ASPARAGUS, 20@25c per bunch. BEANS, (string), 35@40c ¼ pk. BEANS (Lima), 40c per box. BROODING, 25@30c. CABBAGE, 10@20c head. CARROTS, 8@10c bunch. CAULI-FLOWER, 25@45c head. CELERY, 10@20c bunch. CUCUMBERS, 10@15c each. EGG PLANT, 25c each. ENDIVE, 50c head. LETTUCE, 10@20c head. MUSHROOMS, 25@30c per pt. box. ONIONS, 20@25c ½ pk. ONIONS, (green), 8@10c bunch. POTATOES, (old), 15@20c (new), 30@35c ½ pk. (old), 15@20c ½ pk. POTATOES (sweet) 25@30c ¼ pk. PEPPERS, 50@60c ea. PARSLEY, 20@25c bunch. PEAS, 25@40c ¼ pk. RADISHES, 8@10c bunch. RHUBARB, 8@10c bunch. SPINACH, 15@18c ¼ pk. TOMATOES, 20@25c pint box. TURNIPS, 15c ¼ pk.

PITTSBURGH

Eggs—Nearby firsts, second-hand cases, 28@29½c; extra firsts, new cases, 26@28½c; nearby hennerly whites and browns, 26½@27c; ducks, 35@40c.
Butter—Nearby tubs, 92 score extras and standards, 40½c; 89 score, 38½c; 88 score, 36½c. Prints and rolls 1c higher.
Poultry—Live hens, heavy, 29@30c; mediums, 30c; Leghorns, 25@26c; broilers, 35@45c; Lehighs, 35@36c; old roosters, 18c; stags, 22c; geese, 16@17c; ducks, 22@28c; pigeons, 40@50c per pair; turkeys, 29@30c.

CHICAGO CASH GRAIN

Chicago, Ill., April 7.—The following cash prices ruled here today: No. 3 yellow corn, 82½@85½c; No. 3 mixed corn, 82@82½c; No. 2 white oats, 45½@46½c.

FEED MARKET

The following quotations are for transit and nearby shipment April 4—second-hand U. S. Bureau of Agricultural Economics. They show the approximate cost of feed per ton (all in 100-lb. sacks) and grain per bushel in carlots arrival draft basis delivered on track at Philadelphia and Scranton rate points:
Bran, \$5@6.50; standard middlings, \$3.91; flour middlings, \$3.60; cottonseed meal, 43 per cent, \$16.25; gluten feed, \$36.50; No. 2 white oats, 56½c; No. 2 yellow corn, \$1.04.

Imagine... sitting on top of a six-foot ladder Looking Up at your tomato plants!

The Reverend A. C. Hamby of Mebane, N. C., writes: "Last year I purchased... GATOR-HIDE MULCH PAPER and used it over... tomatoes."

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Farm Facts and Fancies

By ALVA AGEE

THE moves advised to checkmate crop production remind one of a game of chess. The United States grows more cotton than the world's markets will take at a fair price. When forty-seven million acres were grown in 1926 the price fell below twelve cents a pound. Last year the acreage was forty-six millions of acres and naturally the United States Bureau of Agricultural Economics advises: "Other enterprises that offer equal promise of income or that make for reduced farm and family expenses should be substituted for cotton wherever possible."

The Federal Farm Board, speaking a little more fearlessly, tells the planters that they should lop off six million acres from last year's area. This advice seems sound, and the result would be a big increase in the South's corn acreage, the production of far more of its meat, and a corresponding reduced demand for the products of the Corn Belt.

Another Move

The Farm Board is trying to cause the wheat growers in the spring wheat region to cut acreage heavily. This advice is sound, but it would mean the production of more corn, barley and meat. The Corn Belt again would feel the competition. The substitution of crops is the rational course on individual farms and in big areas of production when a devastating surplus in the chief line of production looms up, but as a national policy to be advocated by our authorities it has its embarrassments.

If conditions permitted the substitution of products that we now are importing, we should be getting somewhere. This sort of substitution has its talking points of course, but in fact our farmers have been sufficiently wide awake to try new crops and are not producing many of them in any considerable amount only because there is no money in doing so. Substitution is not a nation-wide cure for over-expansion of our farming area.

This is mentioned in the interest of clear thinking. If we learn what we cannot do, we may stumble on something we can do. What we really need is a big shrinkage in our total farm area, and it continues to be our national policy to increase the area through reclamation by aid of public funds.

Unjust Tax Burdens

One could make a long list of things that the United States does in a most competent way. One thing we do badly and that is the levying of taxes. We get the money, but through methods that are so unfair that the wonder is that the people stand for it. I have been studying a technical bulletin issued by the U. S. Bureau of Agricultural Economics, wanting to see what hope there may be for improvement of conditions. The present ills are so grounded in human selfishness and public inertia that I found little in this analysis that was comforting.

The general property tax is the chief burden on farmers. It provides most of the revenue for local purposes. The most of this money comes from a tax on tangible property, and that means property that the assessor can touch and see. The contribution made by bonds and stocks and notes is relatively small. A rather large part of this intangible property is made tax-free by legislation, and a big part of the remainder is kept concealed.

According to Ability

Inequalities in appraisement of farm lands are glaring. Competent appraisers would help, but this would not bring a reduction in the total obtained from a property tax. The system of a general property tax is working out badly when made the

chief dependence of government. It should be sufficiently skilled in government to place the chief cost of its maintenance on those who benefit most under it. They should be made to pay going and coming, and the farmer would pay less while standing still. What we need in this country is a square deal and we are far from having it.

These statements do no particular good. People have been making them a long time. The influence against change is seemingly too strong. Little headway is made through taxation of automobiles, gasoline, insurance, and in some states, income, but the farm continues to stand and take the brunt.

Some economists have held that the best tax was the one easiest to collect. A tax on the farm fits into that exactly, and the owner does not make an effective protest. We need more headway in distributing tax burdens according to ability to pay.

The Homely Farm

One of the choicest words in our language is "homely," and who ever gave it a twist in the wrong direction was in poor business. It describes that which is homelike, plain, simple, familiar and worth-while. The economist finds tens of thousands of homely farms that he classes as marginal because the soil isn't very productive and the owners do not have much cash income. These people make homes, have enough to eat and to wear, enjoy life and let others do the worrying.

If food were what we lived for, instead of being something to live on, soil fertility would be about the only consideration. Land has other values and one is its ability to fit exactly into the needs of hundreds of thousands of people who want homely farms. They pay little attention to the tariff and debentures and export demand, providing largely their own market for their products, and many of them are rich in satisfactions that the census people neglected to list for questioning. They like a homely farm, and the Creator has provided that which the ultra efficient do not covet.

I may be thinking of them because a prosperous caller the other day told me that the only cure for overproduction was the return of all some what infertile land to trees. I should like to be among those present when the suggestion of moving off was made to some people I know. They are native Americans, know they are within their rights, and are greatly well convinced that most people who have income taxes to pay are not getting much out of life. A nation of homely people, living on homely farms, might not make the world hum, but how do we surely know that the world profits from humming?

CARROT seed should not be planted too deep, just barely out of sight. Yet it may dry out before sprouts. There is less danger of this in the early part of the season. Some home gardeners have a trick of laying boards along the row to hold the moisture. However, these should be removed promptly as soon as the seeds start.

The soil for carrots should be firm and moist so that their growth may be rapid. All root crops are best when they grow quickly.

Thin carrots to two or three inches in the row, but a first thinning may well space them one inch. To give every other one for early use will complete the thinning.

Standard varieties are Danvers Half Long and Chantenay, but a relatively new variety called Nantes-Coreless is superior in quality, though it yields somewhat less.

N. Y. College of Agriculture



Give the bull an exercise lot. He should not be confined to a small stall but should have room to exercise whenever he wishes. A small barn that is always open gives protection from bad weather and the bull can be fed inside the shelter. An outside pen of permanent construction is important. L. W. M.

Another Narrow Escape

ON March 27th the writer visited Mr. William Smick of Salem county, New Jersey, in company with Mr. G. I. Ball, the county agricultural agent. Mr. Smick at once informed us that he had narrowly escaped being killed by his four-year-old bull on the day previous. Here is the story as Mr. Smick told it:

"The bull was in a far corner of the yard when I stepped out to drive him into the barn. I reached the center of the yard when I saw him start rushing toward me with his head down. I picked up a corn stalk, thinking I could frighten him away. He had always seemed like a gentle, peaceable fellow up to this time. The corn stalk failed to stop him.

"I started to run but the bull caught me on my right side with his head and threw me 15 feet—right against the manure spreader which stood near the stable entrance. He struck me the second time, but I managed to crawl under the spreader before he reached me again. He was mad all right. If the spreader had not been loaded he would have upset it and 'got' me in spite of anything I could have done to save myself.

"Today I feel badly bruised and battered. That bull must go into a bull pen or to the butcher shop right away. I own him in partnership with the owner of this farm and must see my partner about this matter at once."

Protectors of Wild Herds

We were anxious to see the wild animal that had made such a sudden attempt at murder. There he stood in one end of the milking barn, tied by heavy leather straps through the two rings in his nose. He looked frightfully dangerous. The wide open eyes with large portions of white showing reflected his battle charge of the day before. His weight was 1,700 pounds and he possessed unusually good type and breeding. His ten daughters, all calves and yearlings, are a promising lot.

This particular bull's instinct caused all the trouble. All bulls over 18 months of age are inherently and potentially dangerous and should be treated as the rhinoceros, tiger or lion of the circus. The early male ancestors of our modern sires fought against most any kind of wild animal of the herd of which they were head. Domestication has not eliminated that instinct to conquer and kill. Today a bull's brains should be thought of as dynamite that can suddenly be set off by the match of instinct. No one can truly say when that match will be ignited.

Pens built of strong, heavy material must be built for our powerful bulls of today if they are to be properly handled. I can recall 26 dairymen who have told me during the past several years that they narrowly escaped being killed or seriously crippled by their herd bulls. In addition I knew

two others who were killed and am also acquainted with two successful dairymen who were confined to the hospital for six weeks on account of serious injury by bulls.

Besides this safety factor there is another which is influencing thousands of dairy farmers throughout the country to build adequate pens. This is the factor of keeping the bull fit, thus insuring vitality and longevity which will enable him to prove himself through his offspring. The demand for good proved sires is growing rapidly throughout the country. The dairymen are growing tired of taking a chance on a new bull every two or three years. As herds grow healthier, aged sires are being exchanged, leased, or purchased after they have proved they can transmit those qualities of production and type which are so essential in this day of high production costs. E. J. Perry.

Days of Good Horses

ON returning to the farm I was working in 1911, I found in the pocket of an old overcoat a list of colts for sale—responses to a want ad we had run in the paper of an adjoining county. This list contained upwards of twenty young horses, three and four years old—from one to half a dozen to the farm.

We bought one of these horses in February for \$200, running in a lot with several others. This horse was "puffy" when bought and stalked badly as soon as tied up in a planked stall. He was that way to the day we sold him to a Boston buyer for \$255 eighteen months later when past five years old. He weighed 1,905 pounds when led from the blacksmith shop with his shipping shoes on.

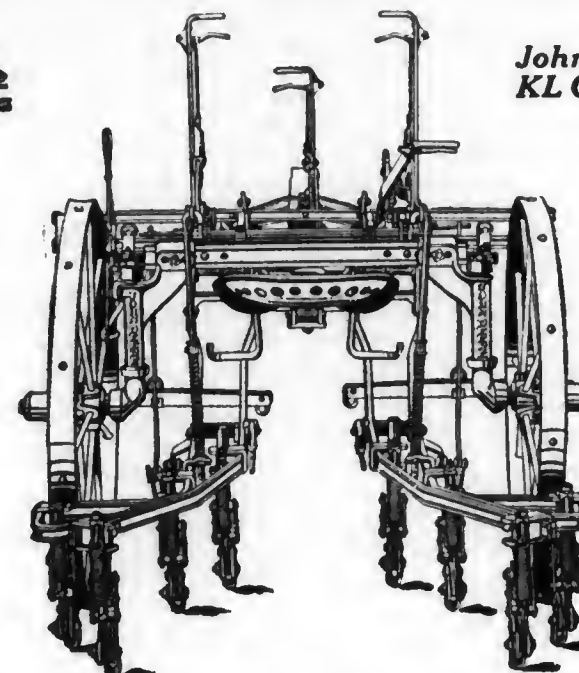
Another team of three-year-old colts was held at \$425, which we passed up but bought two months later for \$415. By the terms of the buy we had to drive after these colts over twenty miles from our farm. On the way home we came to a covered bridge and the horses refused to enter. We drove through the bridge with the buggy, took out the old pacer and led him back where we placed him between the colts and led the three through the bridge with no trouble.

These were a chestnut and a strawberry roan, not mated even in type but always worked well together because raised together. They sold at public auction to a neighboring farmer when coming ten years old for \$400. The horse shipping business had already fanned out.

Last fall we attended a dispersal sale of a local horse trader, where the animals sold from \$14 to \$160, every horse seeming to have from one nick to several. When you buy a draft critter these days you can't think of selling him to Boston or New York—you buy for keeps, so we took on three young mules that went to a price scare of \$150 apiece! G. P. Williams.



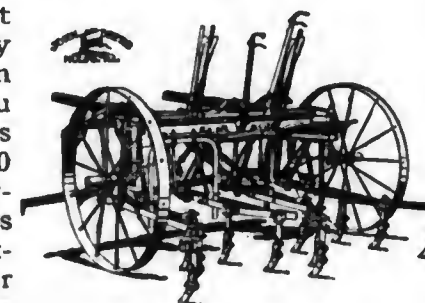
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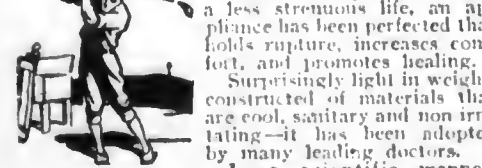
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TWO inquiries concerning the starting of asparagus beds have come to hand and deserve detailed consideration. I know from traveling over a rather wide area that asparagus is not properly appreciated as a spring and early summer vegetable (maybe it is not a vegetable, but I don't know what else to call it). In the area along the Atlantic seaboard it is as staple an article of food from April to July as bread or potatoes. When properly planted and attended asparagus will turn off a surprisingly large amount of good, healthful food.

One of the inquirers asks whether roots at \$3 per hundred is a good buy, and if one should plant two or three-year-old roots. There is no need of paying such a price to start a bed. The best roots can be had from \$10 to \$13 per thousand, and to the second I would answer, plant good one-year-old roots in preference to either. Some growers of roots make a practice of grading their one-year roots into three grades, calling the best and biggest three-year-old roots, the second size two-year roots, and the culls are sold as one-year-old roots. This is a most reprehensible practice. I would not plant the culls if they were given to me. Order one-year-old roots and insist that they be good vigorous plants. It is the only kind worth planting.

When I decided six years ago to plant about three acres of asparagus, and not having the ground ready that spring, I decided to grow our own plants. I did not at first know how to go about it, nor could I find anybody in my community who ever had grown any. I hunted through one of my gardening books and found the process is simple. I went into one of Philadelphia's many good seed houses and bought one pound of Mary Washington seed (the best variety I know of) and prepared the soil according to instructions. I selected a piece that was as free as possible of weeds.

It was made as fine as possible, rolled with a lawn roller, and raked until it was thoroughly fine and level. Then I applied a generous dressing of high-grade fertilizer and this was well worked in. The garden seeder was then made ready by adjusting and setting so as to sow just the right amount of seed. A garden seeder is an invaluable machine for the gardener, as it will sow more evenly and cover more uniformly than it is possible to do by hand. Besides, it sows rows in such alignment that hoeing and cultivating is easy, a condition that I fully appreciated later.

I awaited anxiously for the plants to appear. I did not know what to look for, having never seen any baby

asparagus plants. I waited and waited, and was about to conclude that the seed was bad at the end of two weeks. There was not a sign of anything but the common garden variety of weeds showing themselves. Finally, I saw tiny green spears here and there that were different. A heavy rain and hot sun had baked the fine soil so that I doubted if such delicate shoots could get through. So I ran a little corrugated rolling implement over the rows and broke the crust. Then came a gentle rain, and I was agreeably surprised in a couple of days to see a perfect stand in every row.

Asparagus plants are small and brittle at first and require care in weeding and cultivating. Here is where another garden implement comes in handy,—the push cultivator. By putting the sweeps on, and running them shallow, weeds can be cut off below the surface and the work can be done close to the rows. Here is where the value of a seeder is shown,—the plants are evenly placed in the row. Cultivation was continued throughout the season, and by fall the plot was a solid mass of fine, feathery asparagus plants, several thousand of them.

Early the next spring the piece of land in which we had grown potatoes the year before was plowed deep and harrowed thoroughly. Next, it was staked off in rows seven feet apart. A plow was used to make the furrows, a round trip to each row and an extra furrow made in the bottom. This made a trench about ten inches deep. The plants were spaced out of their setting and sorted, only the largest and best being set in the main plot. Some of the culls were planted in a piece of row by themselves, but these never paid for the trouble of setting.

In setting the roots care must be taken to spread them at least two ways, leaving the crown upright under the soil. I found that by grasping the clump with the left hand and inserting the third and fourth fingers into the mass of roots, I could separate the numerous roots into two nearly even groups. The set was then placed in the bottom of the trench, crown up, and the right hand was used to draw dirt around and over the plant. After the row or rows are filled with plants, a cultivator may then be run between the rows and this rolls dirt down over the plants. Three or four inches of dirt is sufficient at first. Shallow covering allows the sun to warm up the plants and a few days later the cultivator is again used, and so on until the ground is level.

I hope readers will excuse this rather detailed description of asparagus planting, but many have asked about it.



Marvin V. Brubaker planted one acre of Irish Cobbler potatoes on St. Patrick's Day, March 17, 1930. He is known as an early planter, having started his crop last year on March 21st.—Luke W. Martin.

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No. 16



Governor Fisher laid the cornerstone of the new State Farm Products Show building at Harrisburg on April 1st. The building, which will house all of the annual winter farm show under one roof, is now under construction. Much of the steel structure is in place and the outside walls are going up. This building will make available three times the space covered in former shows and is expected to be finished in time for next year's event which is scheduled for the third full week of January, 1931.

More Logging Frolics

By G. W. BUNNELL

job, and elevated to the position for which it was intended; and the crevices "chinked" with moss and clay. Against one gable a fireplace was built from rough field stones and clay, for both heat and culinary purposes. The skill with which this work is done is attested by the fact that some of these chimneys are still erect and unsupported after close to one hundred years, and long after the logs of which the structure was composed have decayed and returned to the soil.

The Task of Clearing Land

Shelter thus provided, the herculean task of clearing the land of the heavy growth of timber was begun and extended over a considerable term of years. The first operation was "under-brushing." This consisted in going over the tract and cutting as close to the ground as possible all except the larger timber. This accomplished, that remaining was felled at right angles to the slope of the land, trimmed of limbs and cut into "logging lengths," usually about twelve feet.

It was all done with axes, as saws were very little used at that early date; and when we first participated in a "clearing" in 1866 axes were still relied on almost exclusively. It was deemed advisable to do the felling as far as possible when the trees were in leaf, as it was of assistance in getting a good "burn," which very materially lightened the labor of clearing, as much of the small stuff was entirely consumed without piling.

Fallows were usually "set" in late July—another operation in which the neighborhood joined; and then followed the "logging," which was almost universally accomplished by "logging bees." They were afternoon affairs; and the attendance was by no means limited to three or four "crews." Every one within a reasonable distance was almost sure to be on hand, enough to log up almost any cutting in a single afternoon.

The methods here in vogue were similar to those described by Mr. Kester with slight variations. Three men and a pair of cattle constituted a "crew," one man handling both team and chain, while two did the rolling.

Sections having been staked out and assigned, operations were begun at the foot of the slope, a location selected for a heap and the first log placed. The oxen, being accustomed to the work, needed but little attention; and it was seldom necessary after the heap was once started to go to their heads, they alternately bringing in a log first from one side and then from the other until the pile was completed.

When drawn to the heap and the chain "dropped" the logs were quickly taken care of by the "rollers." Their equipment consisted of a skid and a hand-spoke each, no canthooks or peavies being used here at that early date. The second log was rolled snug against the first. On this the skids were elevated and the third log dropped in the depression between the two on the ground. The fourth log formed the foundation for the third tier that when finished contained three logs. This operation continued until the pile was as high as could be conveniently rolled, usually as high as the men's shoulders.

The hand-spikes were used until the log was waist high, when they were dropped and the men used their bodies to propel the log to its destination.

Should any "sogs," as the down and partially decayed timber was called, be encountered, they were placed in the center of a pile and surrounded by hardwood that assisted in the burning.

The pile being completed, the men moved up the slope to the edge of the unlogged timber, and another heap was begun. Much good natured rivalry was always in evidence, spurring the men to do their best; and they loved the work.

What appetites it produced. During the logging the ladies had been busy in preparing a feed that, while snails or garnishes were conspicuous by their absence, was entirely satisfactory to the begrimed workers and had staying qualities. A roasted sheep or lamb was popular as the piece d'resistance, but was not always obtainable. Following the supper, dancing was often indulged in until late in the evening when the company dispersed only to get together again the following afternoon and "log up" another fallow.

A Community of Interests.

These were days when conditions were primitive, and there was much that seemed hard and unyielding, but men were men, hearts were large and sympathetic, and there was a community of interests and unity of purpose that is rarely discernible in these latter days. The frequency and popularity of these gatherings for mutual help is shown by the fact that my father often related how for three weeks one fall he attended a logging bee every day. He had two yoke of oxen, and alternated them from day to day.

But it is regrettable that much of this land was ever cleared of its timber, and at a time when it was practically all burned. Thousands of acres that supported a splendid stand of timber is, under present agricultural conditions, a liability rather than an asset, and not worth the taxes assessed against it. Although this strip of country has many fertile farms on which are attractive homes housing an industrious population of farmers, it is our belief that had

(Continued on page 14.)

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A LED BULL

THE man who leads a bull by a rope or a strap takes a chance. Oliver Walton of Nine Points, Lancaster county, Pa., learned this when he led his bull to water April 4th. The bull suddenly attacked Mr. Walton and laid him up with several fractured ribs. Another bull story appears on page 3 of this issue, along with some wholesome advice.

ENDORSED BY SCIENCE

SCIENCE has sauntered up to verify the verdict of small boys and others who have long held the watermelon in high esteem. Tests made by the Bureau of Home Economics, U. S. Department of Agriculture, reveal vitamins in the juicy fruit. This stamp of approval can add little to the fame of the melon in certain quarters, but it may be a hint that most things good to eat are all right, before or after investigation.

COST OF PRODUCTION

THE representatives of Kansas wheat growers recently held a conference at Wichita to consider the problems before them, particularly competition with other areas where wheat may be grown at low cost. They concluded that they can compete with anybody anywhere if they utilize the lessons of agricultural science in increasing yields per acre and the economies of modern machinery in doing their work. Strange as it may appear nobody even mentioned marketing, stabilization or price-fixing as methods of perpetuating the wheat industry of Kansas.

A NEW BUREAU

AGRICULTURAL engineering is becoming more and more important as agriculture advances. It includes farm power, machinery and implements, rural electrification, buildings, water systems, sewage, land drainage, irrigation, erosion of soils, and a host of things incidental to these. Now the subject is represented in the United States Department of Agriculture by an obscure division in the Bureau of Public Roads. It should be taken out of that obscurity and that illogical relation and given a place in consonance with its importance in the industry of agriculture. Because it is of such great and growing importance we are in favor of the

movement of the American Society of Agricultural Engineers to establish a Bureau of Agricultural Engineering in the Department of Agriculture. The sooner it is done the better. Only a decade ago we were told by certain authorities that there was no such thing as agricultural engineering, but now these same authorities admit that they were wrong, recognize the work and the members of the new profession and respect both. Let us give them both proper recognition in the Department of Agriculture and everywhere.

NEW USE FOR RADIO?

TWO radio stations have applied to the Federal Radio Commission for permits to operate on low frequencies for the purpose of destroying insect pests. Nobody appears to know just what these stations hope to do or how they plan to do it, so there is plenty of room for conjecture. May we hope that some day, by some use of the etheral wave, we may chase away or destroy the bed bug, the squash bug, the potato bug and the host of other pestiferous bugs? And if bugs may be so controlled why not other things as well? The germs which destroy so much life and property, for instance. Probably we shall find that "low frequencies" will apply more to the instances of such pest eradication than to the means of it.

WHEAT SCHEMES

NEARLY every week somebody comes along with a plan whereby wheat production may continue on a large scale and prices may be maintained. All of these plans are based on the theory that the government can perform commercial miracles regardless of actual conditions and not one of them is worthy of serious consideration. We have been asked by a few of these theorists to give a better plan before condemning theirs, so here it is: Leave the regulation of wheat prices, the time and method of marketing, the movement into distribution and consumption, the area seeded, the volume of production, and all other problems of this kind, to untrammelled commercial and natural influences. Let the studious reader carefully consider this little scheme and all it implies, then tell us wherein it is defective. It is old-fashioned, of course, apparently clear out of style in these days of meddling and monkeying with economic forces, but what new-fangled plan is as good?

TALKED SHUT

LAST week a bank was forced to close its doors after a long and almost successful struggle. The bank's officers state that while it had survived eight years of deflation and depression it could not survive four years of talk, or what they call "vicious gossip, with no foundation in fact." In other words this bank was talked out of business. So many depositors were induced by the current gossip to withdraw their money that the bank could not go on. This is not the only bank that has been talked shut, nor are banks the only things that have suffered by too much talk. How much has been talked off the price of farms during the past ten years, even though a great deal of the talk was not vicious but well meant? Nobody can say how much, but it is a fact that too many investors have been talked out of land just when their support was most needed.

INCONSISTENT

THE Congress of the United States enacted a law for the purpose of regulating grain exchanges and trading thereon so that manipulation and control of markets would be impossible. The Supreme Court of the

United States declared that law to be unconstitutional. Then the Congress was so impressed with the necessity of preventing manipulation that it enacted another law, reciting therein the statement that trading on exchanges "is susceptible to speculation, manipulation and control." That law is now in effect, administered by the Department of Agriculture through the Grain Futures Administration. There may be some difference of opinion about the value of the law but there can be no doubt about its purpose. It was enacted with the clearly expressed purpose of so regulating markets as to prevent manipulation and control.

Seven years after the enactment of the above law the Congress of the United States enacted another law which authorizes manipulation of grain markets and finances it with public funds; also provides an agency to do just what the earlier law was intended to prevent or prohibit. For no matter what we may call the market operations of the federal agency and its subsidiaries they necessarily amount to speculation and manipulation on a vast but thus far unknown scale. And the head of the Department charged with the duty of enforcing the first named law is one of the federal board authorized by the second law to violate the first law's fundamental purpose. There are other inconsistencies in the legislation referred to but this is enough for one time.

ABANDONED FARMS

THE Cornell Experiment Station has recently published an interesting bulletin on Abandoned Farm Areas in New York. In it we find that during the forty-five years 1880-1925 the area of land in farms in New York declined 19 per cent, but the area of land in crops declined only 9 per cent. During this period the production per acre increased 17 per cent and the total production increased 7 per cent. All of which is ample evidence of better farming. The investigators say that New York can abandon still more poor land and yet increase food production to provide for its growing population. Better farming will produce more food on fewer acres.

One striking fact is that abandonment of unfit land is "an exceedingly slow and painful process." In most of the areas investigated abandonment has been going on for fifty to seventy-five years and is still "far from complete." Farms don't remain abandoned. Every time abandonment is found necessary by one group there is a new group willing to try to do what their predecessors have found to be impossible—make a living on unfit land. Perhaps the best lesson farmers or would-be farmers can learn from this is to stay away from land that never was good. Land that was once productive may be made so again, but land that is naturally poor is hopeless—at least it is so for the man who must live by farming.

FROM LIFE

OVER a century ago a young civil engineer died of typhoid fever while engaged in the construction of a canal. He was poor and his family was scattered. One boy of nine years was "bound out," as the custom then was, to a man who did not supply him with shoes to wear during the winter. An older boy, bound to the same man, got shoes for the younger one, whose relatives came and secured his release. That was the last time these two boys saw each other for seventy-four years. Then the younger heard of a very old man who bore the same name as his benefactor. He went to see him and thank him. They recognized each other at once and had a glorious reunion. Facts are often stranger than fiction.

New Jersey Farm Comment

By G. W. HARRIS

A YEAR'S meter record on five New Jersey dairy farms shows that the cost of cooling each can of milk to 50 degrees Fahrenheit by electric refrigeration was less than if ice had been used.

The approaching warm weather and the more strict regulations being enforced by milk dealers to meet demands for better quality milk are now turning the thoughts of dairymen toward some method of dairy refrigeration. Most producers who ship to high quality milk markets are required to cool their milk to 50 degrees Fahrenheit, a demand which in many cases requires the use of ice or mechanical refrigeration.

This has brought about an increasing interest in comparative costs of electricity and ice for refrigeration. W. C. Krueger, New Jersey extension specialist in rural electrification, has compared these figures and finds that the initial costs are comparable. The ice house and storage approximate the cost of a refrigerating unit and box.

Mr. Krueger has taken representative figures for New Jersey and estimates the home storage of ice is costing farmers about \$3 a ton and, since 50 per cent more ice than is needed must be stored to allow for melting, the ice actually used for cooling costs \$4.50 a ton. A charge of six cents per hundred pounds of ice is added for the icing of a tank, making a total cost of 28 cents per hundred.

From 27 to 30 pounds of ice are required to cool and hold a 40-quart can of milk at 50 degrees, the amount depending on the size of the cooling tank. This figures the cost of milk refrigeration by ice between eight and nine cents a can.

Refrigeration by electricity on five New Jersey dairy farms cost but six cents for every can of milk cooled and held at 50 degrees Fahrenheit. The year's meter records on these farms show a variation between .6 and 1.7 kilowatt hour for each 40-quart can cooled, the average being one kilowatt hour. Six cents per kilowatt is a fair average charge for such power in New Jersey.

Mr. Krueger warns dairymen against buying too small cooling units, for they are inefficient and costly when overloaded. Many, who have tried to keep first cost of installing electric dairy refrigeration at a low figure, have bought units with a too small capacity for their needs and now find the operating expense is too high to be economical. Even under maximum load and in hottest weather; a refrigerator should not have to run much over half time.

ALTHOUGH only about 2,000,000 acres of land in New Jersey are devoted to agriculture, it is one of the leading states in the production of vegetables.

Based on the quantity produced last year New Jersey ranks second in the production of asparagus for market while California is first. New Jersey holds second place in the production of string and snap beans, egg plant, peppers and tomatoes for market while Florida markets the largest volume of these vegetables. In growing tomatoes for manufacture New Jersey is exceeded only by Indiana.

Even in the production of that vegetable despised by children, spinach, New Jersey rates third place. Among the nine late states New Jersey is second in the production of cantaloupes and Colorado is first. Among all states producing cantaloupes, New Jersey is sixth, California first, Colorado second, Arizona third, Maryland fourth, and Indiana fifth. In the production of celery New Jersey holds sixth place, California first, Florida second, New York third, Michigan fourth and Colorado fifth.

In the entire country New Jersey places fifth in the production of cabbage, Texas is first, Louisiana second, Virginia third and Florida fourth. New Jersey's rank in the production of cucumbers for market is seventh, Florida first, Texas second, South Carolina third, Alabama fourth, North Carolina fifth and Louisiana sixth.

Sweet potato production in New Jersey is in eleventh place as compared to other states. In the production of cranberries the state is second, Massachusetts ranking first. New Jersey is fifth in peach production. California being the first, Illinois second, Georgia third and Arkansas fourth.

FOX and Son Poultry Farm entry of White Leghorns with its record of 1,392 eggs produced since the opening of the Passaic County Egg-Laying Contest continued to lead all New Jersey en-

tries at the end of the twenty-sixth week. This flock ranks first in its class and third among all competitors.

Birds from the Spartan Rock Farm at Nutley lead their breed division with 1,312 eggs and stand sixth among all entries. White Leghorns from the Darfield Poultry Farm, Preakness, are second in their class with 1,297 eggs to their credit and rank seventh among all contestants. The United Poultry Farm flock from Toms River is eighth with 1,286 eggs. In the same class the Quality Poultry Farm entry from Montville, with 1,281 eggs recorded, stands ninth in total production.

NEW JERSEY'S highest scoring entry in the Vineland Egg-Laying Contest, a Rhode Island Red pen from Woodview Poultry Farm, Mount Holly, improved its position during the twenty-sixth week of competition by advancing from



City Man's Idea of Farm Census

fourth to third place among all contestants.

The total score of the Woodview Farm Reds is 1,382 eggs, or 109 less than that of the leading pen from the Scott Poultry Farm, Groton, Mass. Only one other New Jersey flock is listed among the first ten entries in total production. This is the Rhode Island Red entry owned by Louis D. Schable of Shiloh. A 1,359-egg score puts this flock in fifth place.

FOR the second time the flocks in the Hunterdon County Egg-Laying Contest have produced the highest weekly percentage of eggs of all the contests in the state. During the twenty-sixth week of the contest 2,483 eggs were laid, giving that contest a 71.37 per cent production record. Vineland's high record is 69.95 per cent and Passaic's is 68.93 per cent. Production of the Hunterdon flock, which is under the direction of G. H. Schmidt, is now approaching that of the other two contests, even though it got off at a slow start in the beginning.

Leading the contests is the White Leghorn flock from Fox and Son Poultry Farms at Little Falls with its total score of 1,236 eggs. Second place is held with a 1,193-egg record by a pen of Leghorns owned by Jerseyland Farm, Point Pleasant.

In fact, eight of the highest ten records are held by New Jersey owned birds. Kerr Chickeries, Frenchtown, placed fourth with its flock of Rhode Island Reds laying 1,165 eggs; Lauderdale Brothers, Lambertville, fifth with White Wyandottes, 1,128; United Poultry Farm, Toms River, seventh with White Leghorns, 1,124 eggs; Broadview Farms, Blawenburg, eighth with White Leghorns, 1,095; and Joseph Joachim, Riverton, ninth and tenth with two pens of White Leghorns, 1,087 eggs and 1,083 eggs.

THE New Jersey Department of Agriculture is on the air. If you tuned in your radio last Monday afternoon at 4:45 on station WOR you heard Wm. B. Duryee, Secretary of Agriculture, tell of some of the trends of agriculture in New Jersey in the first of a series of talks that will be broadcast by the Department each

Monday over WOR.

If any housewife wants to know how to tell a good egg from a bad egg, how to make New Jersey eggs good, or how to get more of these eggs on the breakfast tables in New Jersey homes, just tune in on WOR at the scheduled hour next Monday and listen to Alben E. Jones' discussion of "Jersey Eggs for Jersey People."

Each Monday afternoon at 4:45 o'clock for 15 minutes duration the Department of Agriculture will broadcast as follows:

April 28.—What Animal Disease Control Means to Human Health—Dr. J. H. McNeil, Chief, Bureau of Animal Industry.

May 5.—Feeding New Jersey's Increasing Population—H. B. Weiss, Chief, Bureau of Statistics and Inspection.

May 12.—The Machine Age in Agriculture—Secretary Wm. B. Duryee.

May 19.—Adventures in the New Culture of an Old Fruit—Miss Elizabeth C. White, of Whitesbog. Miss White is New Jersey's famous woman horticulturist, whose accomplishments in blueberry culture are known throughout the country.

May 26.—Quality Factors in Milk—Secretary Duryee.

June 2.—Either Mr. Weiss or Mr. Edgar G. Rex, entomologist in charge of plant pest control, will speak of "The Insect Onslaught upon Human Food."

June 9.—Fresh Fruits and Vegetables for the Consumer's Table—W. W. Oley, Chief, Bureau of Markets.

June 16.—Combating the Japanese Beetle.

AN interesting situation has developed in the early potato growing counties of Maryland and Virginia Eastern Shore this spring. In the face of a vigorous campaign for limitation of acreage, put on by the Bureau of Agricultural Economics of the United States Department of Agriculture, by the state marketing organizations and by the Interstate Early Potato Commission, and sanctioned by the Federal Farm Board, the farmers of these counties have planted about 7,000 more acres in potatoes than they did last spring.

Numerous meetings were held in the early potato area, and speakers used charts and graphs and much oratory to prove that any increase over the 56,000 acres grown in Virginia and the 14,200 acres grown in Maryland Eastern Shore territory last year would mean lower prices, agricultural distress and perhaps even bankruptcy. And the farmers promptly went back home and prepared more acres for planting!

Potato growers on the Shore received an average of around \$1.25 a bushel last year. Two years before, when they had a bumper crop and potatoes from the Far South came into market abnormally late because of weather conditions, the price fell to around 60 cents, and even below. A good many acres were never dug. The federal and state marketing specialists seem agreed that this year holds promise of similar disaster, basing their judgment largely on acreage totals. But the farmers, apparently, are willing to gamble on another factor—the weather.

Normally, the Eastern Shore furnishes a large share of the potatoes handled in the big Eastern markets in July and August, and usually has little competition. If the potatoes from Florida and the Carolinas are well out of the way before the Eastern Shore crop is ready for market—and there seems a fair chance that just that may happen this year—the judgment of the growers may turn out to be better than that of the market forecasters.

R. B. T.

AT the request of North Jersey vegetable growers who are seeking a means of cutting their high labor costs, the Extension Service of the State Agricultural Experiment Station has scheduled a two-day demonstration of labor-saving machinery and equipment for April 25 and 26.

The turn of Paul Scoles on Paramus Road, four miles from Mackensack, has been selected for the demonstration.

Poison Ivy, Poison Sumac and Their Relatives

By Dr. E. M. GRESS
Pennsylvania State Botanist

MANY people are very susceptible to ivy poisoning, which is caused by a non-volatile oil. These minute particles of oil come in contact with the skin and cause inflammation followed by little watery blisters which itch and burn, and spread rapidly over the body if not checked. All parts of the plants are poisonous and at all times of the year. Some people are so sensitive to the poison that they believe they get it by merely walking past the plant without coming in contact with it. It might be possible to carry the small oil particles on dust or pollen, but more likely the persons affected have unconsciously come in contact with the plant or perhaps they have got the poison by handling their shoes or some other parts of their clothing that have come in contact with it.

A young man who was working in the biological laboratory unconsciously laid his coat on a dried specimen of poison ivy. A few days later his sweetheart had a very severe attack of ivy poisoning on her cheek. She declared that she had got it by walking by on the leeward side of a poison ivy vine.

Prevention is easier than curing, and those who are susceptible should be cautious and, if possible, not come in contact with the plant. If they have come in contact or suspect that they have been exposed to it, the exposed parts of the body should be washed thoroughly with hot water and soap, or bathed several times with grain alcohol.

Preventives and Remedies

The non-volatile oil is soluble in alcohol and is emulsified by alkalies such as are used in most soaps. Indeed, a good preventive for one who is very susceptible to the poison is to cover his hands and face with a thick lather of soap, if he knows that he is going to be exposed to the poison. The lather dries on the skin and the particles of oil settle on the film instead of coming in contact

with the skin and may easily be washed off, thus preventing an attack.

Another preventive is a five per cent solution of ferric chloride in a mixture of 50 per cent water and 50 per cent glycerine. This should be rubbed on exposed parts of the body and allowed to dry without wiping.

Numerous remedies for curing ivy poisoning are recommended. One very highly recommended is a three per cent solution of potassium permanganate. The photographers' hypo is also very effective on some people. A 50 to 70 per cent alcoholic solution of sugar of lead is an old and reliable remedy. This is also used in the form of a salve.

Poison ivy is a vine climbing by means of aerial roots which cling by terminal disks to trunk of trees, fence posts and other supports. It is sometimes confused with Virginia creeper from which it may easily be distinguished by its three instead of five leaflets and by its white instead of blue berries.

"Leaflets three quickly flee,

Berries white, take to flight."

There is a low erect shrub form of poison ivy which sometimes covers large areas. These upright branches spring from creeping underground stems. Many people are acquainted with only one form of the plant, and therefore do not realize that they are both equally poisonous. Both the high-climbing and the low, erect shrub form are very common.

Poison ivy is very abundant and of no economic use whatever, consequently every effort should be made to eradicate the plant. It is difficult to eradicate by digging, because of the danger of becoming poisoned. However, there are several chemicals which may be used to kill it. More than one application may be necessary, because as long as the underground parts are alive new plants will come up.

Among the remedies used in killing poison ivy are the following: Spraying the plants with sodium arsenite—one pound dissolved in five gallons of water; or with iron sulphate—two pounds to one gallon of water; or with sulphuric acid—one pound



Poison ivy—high-climbing and shrub forms.

to five quarts of water; still another spray may be made by adding one pound of white arsenic and two pounds of sal soda to five gallons of water.

Caution: Care must be used in mixing sulphuric acid and water; heat is generated which may cause an explosion. The sulphuric acid must be added very slowly while stirring, and the mixture should be made in an earthenware vessel. This, as well as all the other chemicals, should be handled carefully and kept from the skin and clothing and away from children.

Poison sumac, swamp sumac or poison elder (*Rhus vernix*) is a shrub or sometimes a small tree even more poisonous to the touch than poison ivy. Fortunately, it is not so common, being found only in swamps and bogs especially the latter. It is a near relative of three other shrub forms of sumac: the stag-horn sumac (*Rhus typhina*), the smooth sumac (*Rhus glabra*), and the shining or copal sumac (*Rhus copallina*), none of which is poisonous but all of which are suspected by those who are not acquainted with the poison form.

In the poison sumac the stem (rachis) to which the seven to thirteen leaflets are attached is round and not broad and winged like that in the shining sumac, which is a very marked distinction between these two species. (Continued on page 14.)

1. Poison sumac, a shrub or small tree which is even more poisonous than poison ivy.
2. This picture shows typical leaves and flower of poison ivy.
3. Shining sumac, a non-poisonous shrub.
4. Smooth sumac is another non-poisonous member of the sumac family.
5. Stag-horn sumac is common in this state. Like the smooth and the shining sumacs it is not poisonous to touch.



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Milly Woodbridge's Trek to the Pacific

The Pioneers of the Peace River Valley

CHAPTER I

By C. A. Stephens

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AT the outset, it must be explained that the Mastermans (relatives of the present writer), also the Woodbridges and many other settlers, of several different nationalities, went to the Peace River country on the strength of information they had received that the new line of the Grand Trunk Railway, of Canada, would immediately be constructed through to the Pacific Ocean by way of the valley of the Peace. It was sure to go that way, they were told, and an alluring prospect of fertile farms near that fine line of railway was what induced them to migrate so far north.

The hopeful settlers preempted excellent land in the vicinity of Moberly Lake, and raised good crops of wheat for three years.

But no trust in railroads—before they are built! As a result of much exploration and many preliminary surveys of different routes through the Rocky Mountains, the railway engineers finally chose what is now known as the Tete Jaune, or Yellow Head Pass route, and the new line was constructed through the mountains to the sea, at the new terminal town of Prince Rupert, two hundred miles south of the Peace River valley.

The pioneers were greatly disheartened. Twenty or thirty years might pass before another railroad would go that way. They now saw they might live all their lives in that remote region with no means of transportation southward, save by horse teams.

The Masterman boys—Quinby, Jesse and Welcome—were not the kind of young men to settle down with so cheerless a prospect for the future. They sold their stock, abandoned their new farm and, after returning to Edmonton, journeyed to Prince Rupert. Following the building of the railway, this young city of the Pacific was then enjoying a grand "boom," as its seaport. All real estate was soaring in value. My young kinsmen promptly invested in house lots, but were caught on the reflux wave of the boom, following the World War, and lost rather heavily.

Still undismayed, however, they voyaged on across the inlets to Skidegate Harbor, in Queen Charlotte's Islands where, having yet a few thousand dollars left, they purchased a small steamer "Whaler" and embarked in the business of hunting "sulphur-bottom" whales—and at present are making a great success of it, clearing as much as twenty thousand dollars from a single cruise of a week outside the Islands! So much for youthful energy, courage and a determination not to lose out in the battle of life.

The case of the Woodbridges was somewhat different. They were "Americans," as settlers in the Northwest who hail from the United States are commonly called; and at the time they migrated north, the family consisted of the father, Freeman Woodbridge, a daughter Milly, her older brother Winthrop, and for a time a kinsman on the maternal side who was generally spoken of as "Uncle Horace."

THEY came originally from Hartford, Connecticut. But they had lived in Iowa for several years, afterwards in North Dakota, and later still, in the state of Washington.

Freeman Woodbridge—as once mentioned in our Tales of the Peace River Country—was one of those peripatetic geniuses whose mission seems to be to wander through life looking for water powers and building mills on them. As a boy in Connecticut, he had set up water wheels on a brook; and as a man and millwright, he had a record of two grist mills in Iowa, three sawmills in Dakota, and two or three in Washington: a mechanical genius, yet possessing "no head for business." Always some financial disaster drove him on, to look for new mill sites. Some hard creditor invariably got his mill from him.

From Washington he migrated to British Columbia and finally reached a remote creek near the Peace, with the firm conviction that lumber was sure to be in great demand for the new houses of the future settlers.

As compensation, perhaps, for his many disappointments in life, fortune had given him a wife who had been his good genius, comforter and caretaker. She had perished, however, in a flood that swept away their last mill in Washington. Her daughter, Milly, was much like her—prudent, practical and courageous in adversity. In fact, Milly, after her mother's death, was the mainstay of the family; she it was who held it together and kept things going. Several of her adventures in this

new land showed this characteristic of her nature; how their shack was robbed of the "Rosomaka"; how the "Chinook" came; how their Jersey, "Brighteyes," which the Mastermans gave them, ran away; how "Barty," a blind bear, came to be a pet with them, and how Winthrop found "Old Peregrinations"—a horse which miners on their way to the Klondike had turned adrift, years previously.

When the writer had the pleasure of meeting the Woodbridges, shortly after they settled on the Peace River, Milly looked to be a strong, healthy girl of fifteen or sixteen. As I remember her she had clear hazel eyes, abundant light-brown hair, lips often rising at the corners in an engaging smile and a complexion brightened by exposure to outdoor air and sunshine. In short, she seemed of a happy disposition and very attractive, so much so that the evident admiration of my young cousin, Quinby, was easily understood.

Winthrop was very little like Milly. He much resembled his father. He liked to work in the mill and tinker with machinery; but what he really loved was wood carving, making homely wooden utensils and even images and busts. He had a knack and a gift for that sort of thing.

The creek where Freeman Woodbridge had succeeded in building a sawmill was a long way from the wheat farm where the Mastermans had settled. But they were neighbors in a pioneer sense,



The Cheerful Plowman

PLANT A TREE NOW!

PERHAPS you neglected in pioneer days to set out some trees by fences and ways; in the rush of those times with the wolf at the door, first thought was of food and of shelter and store, while beauty and sentiment, said 'tis to say, were forced to bide time till a happier day; but it's not too late, so go make you a vow, go buy you a sapling and plant a tree now.

Perhaps in the hurry of building your shed, of building a shelter for table and bed, you didn't have leisure for planting a pine, a spruce, or a fir on the boundary line; perhaps in the hurry of breaking the sod and wringing a crop from the glebe and the clod, you had not a moment for setting a birch by the side of the road where the robins could perch; but it's not too late, so go make you a vow, go buy you a sapling and plant a tree now.

Perhaps there were illness in those early days, when hardship appeared in a thousand of ways, perhaps there was death and a burial lot and grief at its sternest that had to be fought; perhaps the crops failed and the larder was bare, perhaps an old ladder was used as a stair; perhaps there was flood, or heat, hoppers and hail that crowded out thoughts of a grove in the dale; but it's not too late, so go make you a vow, go buy you a sapling and plant a tree now.

Perhaps things went well from the very first year that you broke up the soil in the valley lands here and wealth came in quickly and brought you a thirst for money and power that was lacking at first; perhaps on acquiring your mind has been set until not a tree has been planted as yet; perhaps in your eagerness, greediness, pace, you've crowded all sentiment out of the race; but it's not too late, so go make you a vow, go buy you a sapling and plant a tree now.

J. E. T.

and visited to and fro at times, particularly the young folks. It was quite plain, indeed, that a warm attachment had sprung up between Milly and Quinby. When, therefore, the Masterman boys gave up the idea of farming there and resolved to migrate to Prince Rupert, they were very desirous of having the Woodbridges go with them. Milly and Winthrop wished to do so. The obstacle was their father.

Freeman Woodbridge still believed in his mill. He and Winthrop were at that time sawing about a thousand feet of lumber a day; and despite all arguments and probabilities to the contrary, he still believed that a considerable sale of lumber could presently be made. "People will soon be settling all round here," he said. "They will want houses. Lumber will sell."

He obstinately refused to leave. His health had been failing of late; he was coughing badly at times. "I never intend to leave here," he constantly exclaimed when Milly sought to convince him; that they would better accompany the Mastermans. "I've been moving all my life," he said. "I'm tired of it. Here I stop."

No doubt this decision of Freeman Woodbridge was a greater disappointment to his daughter than any one knew, save herself. But loyalty to her folks was one of the sterling traits of Milly Woodbridge's character. She acquiesced in her father's determination to remain, although her own better judgment convinced her that it was a mistake to do so.

Lonesomeness fell heavily upon them, after the Mastermans moved away, upon Milly especially. Months dragged by. No one came to buy lumber. Such settlers as remained were poor and built their houses and barns of logs. The Woodbridge board piles grew in number; but only two thousand feet were disposed of in six months, and these for potatoes instead of cash.

Cold weather and short days came on; they passed a deplorably hard, lonely winter. No mail now reached them. They had heard but once from the Mastermans. It was Quinby who wrote again urging them to abandon their place and come to the thriving new seaport on the western ocean;—the Prince Rupert boom was then at its height.

Freeman Woodbridge, however, remained fixed in his resolve to live and die in the Valley of the Peace; and throughout the summer that followed he and Winthrop went on sawing lumber—which no one was likely to buy. Neither he nor Winthrop possessed much aptitude for cultivating crops, or they might have raised a field of wheat, potatoes and garden vegetables. For short as are the summers there, the warm, long days of June, July and early August force all vegetation forward at a pace far more rapid than in more southerly latitudes where the nights are longer. Up there at the summer solstice the sun shines twenty-two hours daily. Seventy-six days suffice to raise a crop of wheat.

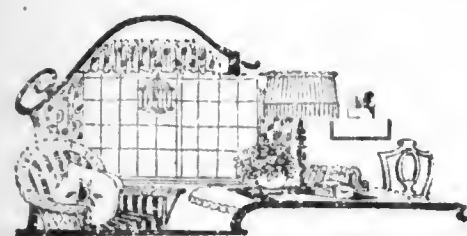
Early in June Milly planted a garden and had new potatoes in August, also turnips and lettuce. A single acre of wheat would have stood them in good stead for the winter; but throughout the season Freeman and Winthrop went on sawing boards.

THE summer crept by and winter came on apace. No lumber had been sold during the last six months; and now their sole remaining money had to be expended for food supplies, mainly canned goods, at the Hudson Bay Company's store at Fort St. John, and they had to make a boat trip on the river to fetch it home. During that summer, too, Uncle Horace, grown discouraged by the bad outlook, had left them and returned first to Edmonton, and thence home to Connecticut.

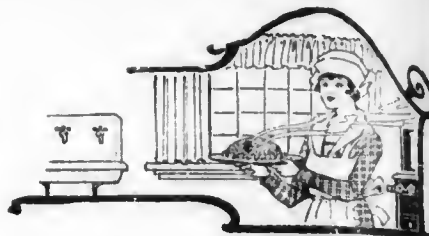
One can hardly imagine a gloomier situation than that of the Woodbridges through the ensuing cold season. Influenza had penetrated even to that isolated region. Freeman Woodbridge was ill of it from December till March and his cough got worse. Medical aid there was none within seventy miles. Days of painful brooding oppressed the poor man; and to Milly and Winthrop, who saw no likelihood of improvement in their affairs, those long weeks of wintry solitude and darkness must have been inexpressibly dreary.

Once during the winter Milly had ventured to ask her father whether it would not be well, in view of the lack of market for his lumber, to change their plans and go to reside in a less solitary part of the world. At first he was angry, then bade her respect his decision. "I hope you will not bring this subject up again," he said shortly. "I shall never change my mind," he added.

(To be continued.)



The Farm Home



Sunny Monday with Modern Washer

9 p. m. Sunday.—Around the piano with Pa and the children singing hymns.
6:30 a. m. Monday.—Baking waffles and eating soft boiled eggs at the daily breakfast gathering with all the family.
7 o'clock.—Putting the farm kitchen in order for the laundry work.

Sorting the Wash

7:30.—Starting the motor that makes washday a day not to be dreaded, whether electricity or gasoline does the work. Home-maker goes over rest of wash, removing stains and mending slight tears.

7:45.—A second tub of wash is started, and Sunny Monday rinses and hangs out the first clean sweet clothes.

8:15.—The third wash is started, the second rinsed and hung in the air.

8:45.—The men's overalls, etc., are now given their turn in the motor washer, while our happy Sunny Monday finishes rinsing and hanging all clothes previously washed. If the day is bright and airy the lines are folded, ready for ironing.

9:15.—The last dirty clothes are clean. All are out flying in the breezes. The kitchen is quickly put to rights and Sunny Monday steps gayly out to the letter box and may now glance over the morning paper.

10 o'clock.—In Sunny Monday's house, peace and order reigns. The usual daily picking-up is done, beds are made, baby has had his bath and plans are well under way for the noon-day meal.

11 o'clock.—More clothes are ready to be removed from the line and folded to put away or to iron.

12 o'clock.—Smell the tapioca pudding fresh from the oven, and look at those huge baked potatoes, that crispy salad and the cream of spinach soup.

1 o'clock.—Finds our Sunny Monday with dishes scalded and in the drainer, the tots having a little frolic before naps, and the last clothes being gathered in.

The rest of the day in the Sunny Monday home is one among the flowers and very early garden things; the little chicks are better for having had her several visits, and her family is happy.

This Week's Prize Cake

Husband's Delight

FOUR egg whites, one-half cup butter, one and one-half cups sugar, one cup sweet milk, two and one-half teaspoons baking powder, two cups flour, one teaspoon vanilla.

icing: Three-fourths cup milk and butter, three-fourths cup sugar, one-fourth cup nut meats, four egg yolks.

Boil the sugar, butter and milk until it threads when poured from a spoon. Then add the chopped nut meats, remove from the fire and slowly add the egg yolks well beaten. When cool ice the cake. To chop the nuts lay on a piece of bread or waxed paper and use a knife. I find if they are put through a food chopper they are greasy. Mrs. Warren A. Cope, Pennsylvania.

Note.—This is a lovely cake and very pretty for your Easter table.

Timely Tips

FEED-SACKS supply me with towels, I ravel, bleach, cut in two so that one side is selvage, and hem, and firmly sew loops on each end. If I have tape I use it. Otherwise I make a long strip of muslin with doubled-in edges, and use it for the loops. We aim to have a fair supply of Turkish towels for "Sunday" but ordinarily we have these I have described. They wash easily, iron very smoothly, and if you are in a hurry they can be tak-

en off the line carefully, folded, and not ironed at all.

And while I am on the subject of saving on the ironing I will tell you that I fold my sheets with precision, and lay them on the table over the ironing-blanket, and by the time a few articles are ironed the sheets begin to come off, one at a time, and as I fold them away for the shelf, they look scrumptious, if you know what that means.

As I iron I lay out the things that need mending, and that comes next in my list of duties. All I possibly can, I do on the machine. I split the legs of overalls, set the patch neatly, then sew up the leg again with as small a seam as possible, and presto, the deed is done. Sometimes I merely sew on the patch on a fairly good garment, and later hem it down by hand. But if I did not go right after the missing buttons, torn button-holes, barbed-wire rents and heelless socks, I am afraid I would postpone it till that more convenient day that never comes. This spring I have been having an orgy of turning frayed collars on shirts, not forgetting to neatly catch down the worn edges after I turn them underneath, or the iron will catch its nose in them.

Nellie R. Nesselroede.

The Hostess Gift

IN our family circle we have a very pleasant custom, at least we think it is, of buying a gift for the hostess who entertains the clan at the yearly reunion. It is no small matter to have the house in good order, tables provided for the lawn, coffee made and the various chores done before the gathering, to say nothing of the cleaning up afterwards.

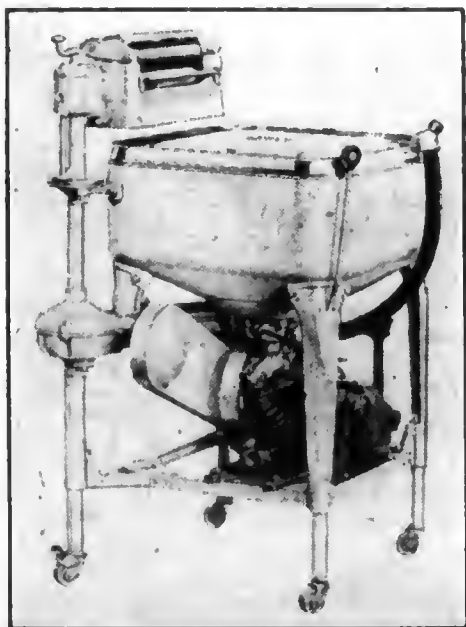
A collection is taken to defray the expenses of postage and some other little items, and then the rest is placed in the hands of a committee who carefully investigate what would be pretty, appropriate and well liked by the hostess. It may be a small piece of furniture, books, a lovely piece of table linen, an ornament or a mirror, but always it is something that will remind her of the good time in her home, and the appreciation of the rest of the family.

Hilda Richmond.

Let Us Help You

Have you ever seen the farm bulletins 1497 and 1474? The former is on Methods and Equipment for Home Laundering, and is full of helpful ideas. Bulletin 1474 discusses Stain Removal and gives a variety of ways to remove every sort of stain from every kind of fabric. Both are free from U. S. Department of Agriculture, Washington, D. C.

If you would like some more literature full of suggestions as to methods, soaking, softening water, better rinsing, washing special fabrics like woollens, rayons, silks, etc., send a self-addressed envelope (stamped, too) to Home Department, Pennsylvania Farmer, 7301 Penn Ave., Pittsburgh, Pa., and your Blue Monday will be a thing of the past.



Rub-a-Dub Makes Mundy Blue

9 p. m. Sunday.—Out in the shed (part of the house) putting clothes to soak in tubs on a wash bench.

6:30 a. m. Monday.—Hurrying the half-fed youngsters out of the crowded kitchen to make room for the bench and its laundry tubs.

7 o'clock.—Pumping and lugging water from the outdoor well to fill the tubs and boiler.

Sorting the Wash

7:30.—Rub-a-dub-dub at the old wash tub.
7:45.—Rub-a-dub-dub at the old wash tub.
8:15.—Rub-a-dub-dub at the old wash tub.
8:45.—Rub-a-dub-dub at the old wash tub.

Mundy Blue is hurrying to rinse a few sheets and get something on the line. The work of washing stops when she leaves the board, for both women are mothers of four young children not of a helping size.

10 o'clock.—More dreary rubbing, and wringing, and hanging. Children growing fretful, mother getting very tired and cross. No morning housework has been touched; no thought of a bath for Junior, no bite for noon in the oven.

11 o'clock.—The baby does not feel right, something is missed, and he does not sleep in his usual nap period. His perpetual crying upsets the whole family.

Since the father and hired man must be fed at twelve, Mundy Blue leaves her last lot of wash to soak while she warms over a few potatoes and some left-over Sunday meat and vegetables. And poor, tired Mundy Blue, with a group of whining children round her knees has more farm socks and overalls to rub, dinner and breakfast dishes to clear away, the kitchen and porch to scrub. This indeed is life in many homes without a motor washer.

When "Mother's" blue, the world is too!
She'd be a good sport—if she ever got through.

Perennials

MORE and more our busy farm women are thankful for the old-fashioned garden of perennials; the spice-pink, narcissus, lilies of the valley, peonies, columbine and a dozen others known only to the lovers of the things that endure. First year flowers from spring plantings of perennials are rarely possible even with the careful handling of the roots. The life germ seems to need a year's growth to adjust itself to any change.

Fall tree planting shows a like need, and advantage that points the way, but the gathering and saving of summer crops must have first place on our autumn programs and this fact does hinder fall planting of perennials.

The fact of our need of dollars, we are learning, must be balanced by the stern fact that great ends are rarely gained without such enrichment of the spirit as only a growing love of beauty can provide. Only a great desire, a great hunger can lift human aims to ever higher levels. We cannot desire or hunger for that which we have never seen or known. Herein is a great argument for beauty in the daily life, in the home.

Even a score of the first spring flowers, usually narcissus, will fill a living room with their rich fragrance as well as a real delight in their beauty. Perhaps a winter as generally trying as the one just past prepares us for a keener appreciation of spring-time beauty. Certain it is my narcissus never seemed so beautiful, so fragrant as this year. My best wishes for every farm home is an old-fashioned garden of perennials.

Hepsy Neff



No. 6801.—Misses' dress. Cut in three sizes: 10, 12 and 14 years. A 12-year size requires 2 1/2 yards of 39-inch material. To finish with bias binding requires 5 1/2 yards of 39-inch material. The belt of contrasting material requires 1 1/2 yards 39 inches wide, cut crosswise. Price 15c or two for 25c.

No. 6794.—Ladies' dress. Cut in eight sizes: 26, 40, 42, 44, 46, 48, 50 and 52 inches bust measure. A 46-inch size requires 4 1/2 yards of 39-inch material. For contrasting material 1 1/2 yards 39 inches wide cut crosswise is required. Price 15c or two for 25c.

No. 5909.—Ladies' apron. Cut in four sizes: small, medium, large and extra large. A medium size requires 2 1/2 yards of 36-inch material. For binding as illustrated 7/8 yards will be required. Price 15c or two for 25c.

No. 6812.—Girls' dress. Cut in four sizes: 8, 10, 12 and 14 years. A 12-year size requires 3 1/2 yards of material 39 inches wide. The belt of contrasting material requires 1 1/2 yards 39 inches wide cut crosswise. Price 15c or two for 25c.

No. 6837.—Ladies' apron frock. Cut in four sizes: small, 34-36; medium, 38-40; large, 42-44; extra large, 46-48 inches bust measure. A medium size requires 3 1/2 yards of material 35 inches wide. For collar and sash of contrasting material 1/2 yard is required cut crosswise. The width of the frock at the lower edge with fullness extended is 2 1/2 yards. Price 15c or two for 25c.

No. 6817.—Girls' dress. Cut in four sizes: 2, 3, 4 and 5 years. A 3-year size requires 1 1/2 yards of material 32 inches wide. For contrasting material 1/2 yard cut crosswise is required. To finish with bias binding requires 2 1/2 yards 1 1/2 inches wide. Price 15c or two for 25c.

No. 6414.—Lingerie set for junior and miss. Cut in four sizes: 14, 16, 18 and 20 years. A 16-year size requires 2 yards 40 inches wide. Price 15c or two for 25c.

No. 6413.—Ladies' slip. Cut in four sizes: small, 34-36; medium, 38-40; large, 42-44; extra large, 46-48 inches bust measure. A medium size requires 2 yards of 40-inch material. Straps of ribbon will require 1 yard. Price 15c or two for 25c.

No. 6418.—Girls' dress. Cut in four sizes: 4, 6, 8 and 10 years. A 10-year size without sleeves, requires two yards of material 36 inches wide or wider. If made with sleeves, as shown in the small view, 2 1/2 yards will be required. To finish neck and armhole edges as illustrated requires 4 1/4 yards of bias binding. Price 15c or two for 25c.

No. 6226.—Ladies' apron. Cut in four sizes: small, medium, large and extra large. A medium size requires 1 1/2 yards of 36-inch material, together with 8 1/4 yards of bias binding. Price 15c or two for 25c.

No. 6005.—Ladies' undergarment. Cut in four sizes: small, 34-36; medium, 38-40; large, 42-44; extra large, 46-48 inches bust measure. A medium size requires 1 1/2 yards of 36-inch material if made with shaped shoulders. If made with camisole top, 1 1/2 yards is required. To trim as illustrated will require 4 yards of lace banding or edging. Price 15c or two for 25c.

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If you're a practical farmer, you have learned that you can't spend valuable daylight hours gossiping at the crossroads store, or arguing with the grocer. You realize the advantages of reading advertisements, for you can trust advertised products and the stores that sell them.

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Read the advertisements in this farm paper, because it will save time and get you greater value per dollar.



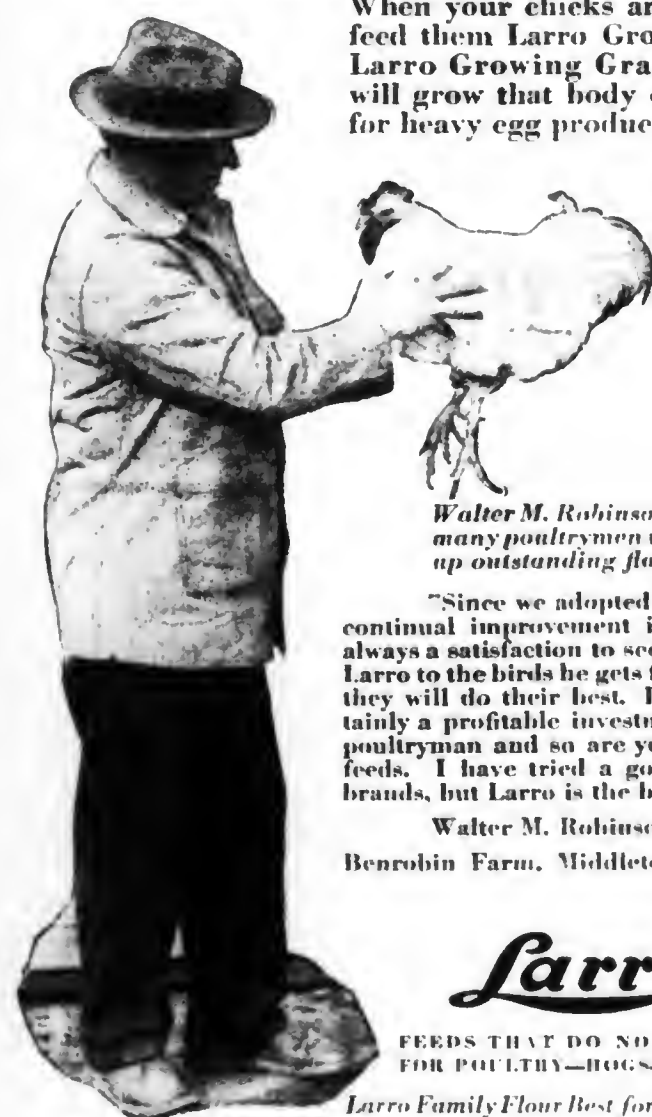
Remember this: When chicks are six weeks old they still have a lot of growing to do. They need a growing mash that will keep them growing and develop the body capacity and vitality for heavy egg production. Do not take chances with an unproved feed.

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Benjamin Farm, Middleton, Mass.

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Nest Box Notes

By R. L. SCHARRING-HAUSEN

AT this season of the year, when most of us are brooding chicks, troubles are bound to arise, and one of them is picking. Sometimes this causes serious losses in chick flocks, and even when not serious chicks that are picked are usually stunted if they live, and each death means the loss of a broiler or a pullet.

It has been pretty well established that picking is not the result of any deficiency in the ration, but rather a vicious habit, which, once started, is hard to control. Prevention is the best. Among the causes of picking are such things as lack of water or feed, too high temperature in the brooder house, and crowding. Proper management will do a lot to eliminate picking.

ONCE picking has begun, all injured chicks should be removed from the flock at once and put by themselves until the wound has scabbed over. Daubing with pine tar, roofing paint or one of the patent antipick remedies on the market will sometimes prevent further picking, but is not always effective. The house may be dimmed by curtaining the windows or painting them with a blue wash, and the habit may be further controlled by putting half a head of cabbage in the pen for the chicks to pick at instead of at each other.

PICKING often becomes serious in laying flocks as well, and I have a number of letters at this time from readers asking what to do for this trouble. It seems that lack of water or crowding may start this vice in older birds, and there is also evidence that when birds are fed grain heavily, especially corn, they may become too fat and for some reason begin to pick at each other's vents. I have also noticed that birds which have not been laying well during the winter sometimes suffer prolapsis when the spring urge causes them to lay, and such birds are of course attacked as soon as the other hens see the protruding membranes.

Whatever the cause, this picking gets to be a vice, and some individuals contract a vicious habit which starts them to picking for no reason at all. Sometimes a little watching will disclose such birds, and they should either be removed from the flock or have the upper part of the beak trimmed down to the quick so that they cannot pick.

AMONG young birds crowding is one of the worst things that can happen at this season, and is one of the commonest reasons for chick flocks going bad. When the young chicks are first put out they don't take up much room and we are likely to put more than we should in a pen. They increase in size so rapidly that the house is soon overcrowded, and then they trample all over each other, pile in the corners, and because there is not enough room at the hoppers and drinking fountains, the weaker ones are pushed aside and do not get enough feed and water, so that they become stunted.

AS soon as it is possible to tell the cockerels, it is a very good plan to separate them from the pullets; it is a good plan to put them by themselves. They are the stronger birds and push the pullets away from the hoppers and generally make a nuisance of themselves, so that the pullets will do much better alone. When this separation is made, it is a good idea to give the young birds more room. I recently separated my oldest young stock, putting what had been in three pens into four pens.

SOME people in starting chicks put them on bare sand under the hover, which I think is one of the worst things that could happen. If this is done, and the chicks are not

fed at the same time, they will eat so much sand that they get packed solid from stem to stern, and many of them will die.

There is pretty good evidence that chicks may be fed as soon as taken from the incubator, despite the old recommendation to starve them up to 72 hours before feeding. Whether they are fed at once or later, an abundance of sand at the first is not the proper thing.

IN starting young chicks, I make a mixture of mash and chick grain, sprinkle a little grit over it, fill the drinking fountains with lukewarm water, and put the feed out in flat pans before the chicks are put out. I never have any trouble from chicks eating sand or litter, and they certainly do well. I have used peat moss for brooder house litter for a number of years, and never had a bit of trouble from it, although some people say the chicks eat it. It has been my experience that if the chicks have feed and water before them they will not eat litter.

IF chicks are to be held before feeding after being taken from the incubator, chick shipping boxes are the best place to put them until they are ready to be fed. The same is true if they are to be held after being received from the hatchery. The boxes should be kept in a dark, comfortable place free from drafts, but should not be put in the brooder house, as it is too warm there with the stove going, and the chicks will be overheated or smothered.

IN feeding small chicks grain it is much better to feed it in a trough or tray than to scatter it in the litter. A good feeder can be made by taking a piece of eight-inch board as long as convenient, and nailing plaster lath around the edges so as to form a tray about an inch deep. These feeders can be made of scrap lumber, and there should be several of them in each pen. If grain is fed on these, there should be very little wasted, as is so often the case.

I AM not in favor of using fiber board or sheet metal to confine the chicks near the brooder for the first few days. If the brooder gets too hot the chicks are bound to suffer. Small mesh wire is much better, as the chicks can get some fresh air if they need it. If the house is properly constructed, there should be nothing to fear from floor drafts; and if it is not, the chicks should not be put into it until everything is right.

Range Paralysis

My hens are dying and are apparently healthy. Their combs are red and they eat well, but they seem to lose the use of their legs. They fall around when they try to walk and finally get so they can't walk. Mrs. John T. Jones.

THE symptoms you describe are those of range paralysis, for which, I am afraid, there is no certain remedy. Poultrymen in New England have been using a preparation known as enteritis powder for this trouble, and some of them report good results.

I think it would be advisable to separate any birds showing paralysis from the rest of the flock, and to give the house a thorough cleaning, using any of the poultry disinfectants that are for sale liberally.

A Triple-Yolked Egg

YESTERDAY one of my Plymouth Rock pullets laid a very large egg. When broken in the frying pan it showed three fully developed yolks. This is the first instance of the kind I have ever heard of. Are triplet eggs very rare? W. K. Hall

Trend of the Industry

By H. C. KNANDEL

WHAT is the present trend of the poultry industry? With eggs selling for less than at any time in the last ten years; with at least 25 per cent more chick orders booked in advance over last year, with broilers, roasters and turkeys selling for less than the average for several years past; what is the future? Prophecy is bad business. It is no business in which a poultry editor should engage—at least not this one. There are, however, certain facts which must be carefully considered and it is on these facts that one can make his future plans.

As has been said, baby chick orders are far ahead of those of last year. That looks hopeful, but these orders were booked months ago when egg prices were good. There is always a correlation between egg prices and baby chick orders.

Poultrymen have seldom received such good prices for eggs over a long period of time as those of last year. August to January of this year. Good early hatched pullets were rather scarce. The supply of good, fresh eggs was readily absorbed by the public. Hence the relatively high price of fresh eggs. Now what has recently happened? Egg prices have tumbled and tumbled badly.

Early Broilers

Many poultrymen during the winter months have endeavored to cut down overhead expenses of brooding equipment by raising early broilers. This is always a precarious job. The year it has proved less remunerative than for several years. The reason is simple; demand has not kept pace with supply.

With more chicks being hatched this year than last, it would seem reasonable to suppose that more pullets would be raised and more broilers placed on the market. What will this mean? It seems inevitable that poultry products like dairy products during the present year will be relatively low in price.

In the country north of us, steady progress has been made over a period of years in the standardization of Canadian eggs. Housewives throughout the provinces of Canada, when they buy eggs, buy them on grade. Farmers and poultrymen sell their eggs to wholesalers and retailers on grade. The result has been that Canadian eggs bring a high price. But most important the annual per capita consumption has steadily increased until today Canadians are eating two eggs to our one. What a change there would be in the poultry outlook in the United States if egg consumption were to double!

National Egg Week

For several years the National Poultry Council has fostered National Egg Week during the first week in May. Posters and stickers are supplied at nominal cost. The former are placed in conspicuous places about towns and cities and bring to the attention of city folks the food value of eggs. The small stickers, which tell the same story, can be placed on baby chick boxes, egg cartons and letters. Every farmer and poultryman in the United States should help foster this movement. It is a good investment for him personally.

Should chick production be increased the number of pullets reared will probably be the greatest in the history of the country. It will, therefore, be necessary to cull rigidly and thoroughly every individual which does not exhibit the potential ability to lay a profitable number of eggs. During the next twelve months the number of eggs a hen must lay to be profitable will be greater than for any year during the past decade. The final outcome will mean that the poorly managed flock will be eliminated and the better trained poultryman will go on his way rejoicing. The poultry business has always righted itself. It will again but it will do so a little more quickly if every one does his part.

50,248 eggs from 910 April-hatched pullets by midwinter



This flock of pullets was used in an experiment conducted on a Northern Ohio farm under the direction of the Research Farm of Dr. Hess & Clark, Inc., Ashland, Ohio. Results given in detail below.

Without any special care or attention, a pullet will lay the first spring following her hatching date. It's only natural that she should do so. But the pullet that lays her first fall and winter... she's not fulfilling any command of nature. What she is doing is repaying her owner for the special care and attention he gave her while she was a baby chick and during her pin-feather days.

THOUSANDS of pullets that lay the first fall and winter are repaying their owner for giving them Dr. Hess Poultry Pan-a-min regularly. For many poultrymen have learned to rely on Pan-a-min to grow and develop their pullets into early profit. In the picture above is a typical Pan-a-min flock. Starting with 2000 day-old chicks early in April, 3 pounds of Pan-a-min was mixed with each 100 pounds of starting mash to build up vitality and to help the chicks avoid the little-chick ills. Pan-a-min was mixed with all their developing mash, and finally, in every pound of mash fed to the layers.

At 10 weeks, 1975 of the original 2000 chicks

were alive and vigorous. Only 25 had died. The cockerels were sold... 987 pullets remained.

On Sept. 1st, 77 culs were cut out—leaving 910 pullets. These were placed in laying quarters.

In September these pullets laid 2698 eggs. And by the first day of February—midwinter—they had laid 50,248 eggs that sold for \$1959.42.

Charging all feed consumed from the beginning, the original cost of chicks, fuel for brooding, cost of Pan-a-min used—crediting eggs, cockerels and culs sold—this flock has produced \$906.66 over and above all expenditures.

Allowing credit for 910 hens valued at \$1.50 each, there was a net profit on the first day of February—less than ten months from the day the chicks were hatched—of \$2371.66—before the average flock had started to lay in earnest.

If you expect your pullets to start laying ahead of the crowd, you'll have to commence now to speed them along to early maturity. Start now feeding them Dr. Hess Poultry Pan-a-min.

Remember, Pan-a-min does not take the place of feed. But no feed can take the place of Pan-a-min. Dr. Hess & Clark, Inc., Ashland, Ohio.

Dr. Hess Poultry PAN-A-MIN A Conditioner and Mineral Supplement

TREXLER CHICKS S. C. White Leghorn

From our own High Producing, Disease-Free flock. The largest single flock of White Leghorns in the state which has been bred for 15 years to maintain a standard for Type and Egg Production.

Your request for our illustrated chick booklet and prices will receive prompt attention.

Trexler Farms, Allentown, Pa.

HAMPTON'S BLACK LEGHORN CHICKS

The proven easy-to-raise disease-proof chick, and greatest layers and layers on the American Farm today. Order now for early delivery.

Weeks of April 21-28 25 50 100 500 1,000

May 4.75 9.00 18.00 37.50 150.00
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Terms: Cash or 30% with order, balance paid per paid. Sale delivery and a square deal guaranteed.

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Get Our Free Chick book on Money-Making Chicks

All leading breeds. Write Today.

Quality Stock—Heavy Layers—Close-Cut—Culled—Sturdy Chicks—Turkeys.

The Old Reliable Linesville Hatchery Linesville, Pa.

100,000 Big, Strong Vigorous CHICKS

22 hatched in nest with 20 years experience. Tanager Strain. S. C. W. Leghorns, 9 cents each. Barred Rocks, 11 cents. S. C. Buff & White Leghorns, 13 cents. Heavy Mixed Broilers, 9 cents. Light Mixed Broilers, 8 cents. 4000 per 1,000. Priced by Parcel Post. Live delivery guaranteed. Circular free. **THE PENNSYLVANIA HATCHERY, Liverpool, Pa.**

FARMERS WANTED EVERYWHERE

To save money on quality Baby Chicks, better prices for hatched stock—Speedy delivery—order today.

Wm. Bro. & Buff Leg. \$6.75 \$13.00 \$37.50
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Min. S. C. W. Leghorns 7.75 15.00 43.50
W. Wyand. & Br. Orp. 8.75 18.00 47.00
Jersey Black Giants 8.50 18.00 53.00
Assorted Mixed Chicks 5.00 9.50 28.50
Send \$1.00 per 100 with order—Will ship C.O.D. for balance. Ask an amazing amount up.

Wolf Hatching & Breeding Co., Box 2-K, Gibsonburg, O.

Mountain Springs Chicks

Ship C. O. D.—10% On Orders.

The wonderful winter layers, 245 to 270 egg strains. Chicks are sired by pedigreed males.

S. C. English & Tanager strain White Leghorn 100-110.00; 500-550.00; 1,000-5100.00. We pay parcel post and guarantee 100% good strong chicks on arrival. Free circulars.

MOUNTAIN SPRINGS POULTRY FARM,

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WEEKLY DELIVERY

\$20 per 100; \$10.50 per 50;

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50c less on 500; 1c on 1,000

Send 10c with order, balance C. O. D. Order Now.

Write for illustrated catalog on 6 other State Certified breeds.

ad. **DEL-MAR-VA HATCHERY, Union, Md.**

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CASH or C. O. D. PRICES FOR MAY.

English and Tanager strains.

S. C. W. Leghorns \$3.00 \$5.00 \$10.00
S. C. Barred Rocks 3.00 5.50 10.00
S. C. White Wyandottes 2.50 4.50 8.00
200 lots \$2.50 less 1,000 lots \$10.00 less 1,000 live delivery guaranteed. Circular free. Order from this ad. **GREEN FOREST POULTRY FARM, N. J. Amis, Prop., Star Route, Box 4, Richfield, Pa.**

STRICKLER'S TANGRED S. C. WHITE LEGHORN BABY CHICKS

BIG HATCHES, MAY 6-13-20-27

Large size, heavy laying production bred

hens weighing 4 to 6 lbs. raised in pedigree

Harro, R. O. P. cockerels. No

lights used; chicks extra hardy and per-

fect. Extra quality sturdy chicks from

these matings, shipped parcel post pre-

paid, 100% live delivery guaranteed.

\$12.00 per 100; \$15.00 per 200; \$37.00 per

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hmas. 100% birds order. Catalog free.

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TAKE NOTICE 100,000 CHICKS for May Delivery

S. C. White Leghorns 25 50 100 500 1,000

Tanager & Buff Str. \$1.00 \$2.50 \$10.00 \$17.50 100

Barred Rocks & Reds 3.00 6.50 12.00 32.50 110

Silver Seal Wyandottes 4.00 7.50 14.00 65.00

White Wyandottes, Buff Orpingtons 11.00

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Hatched from carefully selected free range flocks. Or-

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English White Leghorns \$11.50

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Circular order early for prompt shipment

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From Free Range Selected Flocks

April & May Prices

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100% live delivery guaranteed.

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53 More Bu. of Potatoes Pay for Spray Material and Show Extra Profit..

CHALLENGED to make a convincing test of Pyrox in comparison with bordeaux, George S. Ranck, of New Holland, Pa., made such a test on his farm. The results showed that the acre of potatoes sprayed with Pyrox yielded 53 bushels more than the acre sprayed with bordeaux. The fine Pyrox spray gave better protection against blight. Mr. Ranck writes:

"In discussing Pyrox with your dealers, A. B. Groff and Son, at New Holland, a challenge developed which resulted in my making a test of Pyrox and home-made bordeaux sprays on my farm this past season.

"A two-acre plot with uniform soil was selected and one-half was sprayed with bordeaux mixture 8 times and the other half with Pyrox 8 times. All other conditions—preparation, seed, time of planting, and cultivation—were the same.

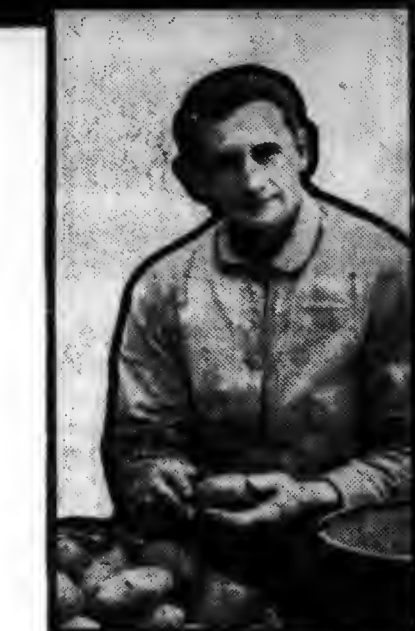
"Potatoes from test rows in each plot were weighed at digging. The acre sprayed with Pyrox yielded 53 bushels more than where home-made bordeaux was used, the yields on the two plots being 337 bushels for Pyrox and 284 for the bordeaux mixture.

"During the growing season the fine Pyrox spray gave greater protection against blight, as all the leaf surface was covered. Better protection, increased yields per acre, and lower cost of production all help to make greater profits."—GEORGE S. RANCK.

Another Grower Gets \$97 per Acre Extra Profit

Another Pennsylvania grower who has made extra cash from potatoes by using Pyrox is Mr. Miles B. Landis, of Lancaster, Pa., who got \$97 per acre increased profit with Pyrox last season. He writes:

"Before this year I have al-



Mr. George S. Ranck of New Holland, Pa., exhibiting Pyrox-protected potatoes which yielded 53 extra bushels per acre.

ways used a regular bordeaux mixture. This year I tried Pyrox and certainly feel well satisfied with it because of its time and labor saving qualities. I further believe that I get a better control of disease and insects with Pyrox.

"The quality of my potatoes this year was very high. I am getting a premium of ten cents per bushel over the regular price here. I figure that my increased yield due to Pyrox was 45 bushels per acre."

MILES B. LANDIS
November 5, 1929

These big extra profits are possible because Pyrox, the scientifically-prepared all-purpose plant spray does three things at once. It kills bugs, prevents blights, and other diseases, and stimulates plant growth. Reduces production costs. Does away with the costly labor and doubtful results of home-made spray mixtures, and eliminates all danger of "burning" and other damage from improperly mixed chemicals. Easy to use. Gives the finest mist—will not clog nozzles. Sticks like paint to plants. Now priced lowest in 31 years. Write us or ask your dealer for a copy of the free Pyrox Spray Guide.

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THE NEW IMPROVED
Pyrox
REG. U. S. PAT. OFF.



Air Transport for Poultry

It is understood that the leading air services are making arrangements that will enable them to deliver birds from the Continent to the Crystal Palace, London, when the Fourth World Poultry Congress is ready to take delivery.

The ordinary means of transport, though excellent and carefully thought out, can hardly compete in point of speed or directness with the airplane. Many owners of valuable birds may welcome the chance of sending their exhibition stock direct in the carefully designed cases that the air services will supply, and we may take it that birds sent by air will arrive at their destination in the pink of condition.

A Step Forward

The fault of the average agricultural or livestock show is that it develops very largely on the utility side. A collection of sheds, marquees and rough outbuildings, set up in ordered disarray, may serve all the purposes of responsible parties and call for no criticism. But the Fourth World Poultry Congress, which is also the first to be held in England, must have a better considered setting, and with this end in view steps are being taken to lay out the buildings, grounds and exhibits in harmony with the grace of design and beauty of embellishment which is associated with the Crystal Palace.

A. Fraser.
Kent, England.

Poison Ivy, Poison Sumac

(Continued from page 8.)

In the staghorn and the smooth sumac the leaflets are toothed while in poison sumac there are no teeth on the margin. The characters for distinguishing the four species which might be confused may be summarized as follows:

1. Rachis or stem to which leaflets are attached winged—Rhus copallina.
2. Rachis not winged
 - a. Leaflets with teeth—Rhus typhina and Rhus glabra.
 - b. Leaflets not toothed—Rhus vernix.

Poisoning from poison sumac is caused in the same way that it is by poison ivy, therefore, the same preventive measures and curative remedies are advised. No one should be careless or negligent about poisoning from poison ivy and poison sumac, for death in a few cases has been the result and some people who have been immune have suddenly become susceptible. Only he who has had a bad case of poisoning knows how intense is the suffering.

More Logging Frolics

(Continued from page 5.)

the timber remained standing until this day, unmolested by the ax of the settler, it would represent more money value than does the cleared land with all its improvements. But not in over fifty years has any such wasteful clearing been indulged in. The last in this locality was in 1878 when a tract of nine acres was "chopped" and cleared, most of the labor being performed by the writer, and but a small percentage of the growth was used for any purpose whatever. Since growing older, I know better.



The Easy Way to Kill Lice on Poultry

No matter how big the flock or how lousy, only a small paint brush, a can of "Black Leaf 40" and a few minutes time for "painting" it on top of the roosts are required to rid an entire flock of body-lice. Do away with old laborious and disagreeable methods of dusting, dipping and greasing!

Paint the Roosts Just Paint the Roosts with "Black Leaf 40"

About a half hour before fowls perch, "paint" "Black Leaf 40" on top of roosts. When fowls perch upon roosts that have been so "painted", fumes are slowly released that permeate the feathers, killing the lice. The treatment is so easy, effective and cheap that poultry owners need never be bothered by lice on their flocks. Think of the time and labor and expense that this method saves! There is no individual handling of fowls, no individual handling of roosts. "Black Leaf 40" is sold by poultry supply stores, \$1.25 size treats 100 feet of roost. Ask your dealer or write us.

Tobacco By-Products & Chemical Co., Louisville, Ky.

"Black Leaf 40"
WORKS WHILE CHICKENS ROOST

Now and always feed PEARL GRIT

Don't stunt the growth of your young fowl. Don't let them get leg weakness and rickets. Keep them healthy and thrifty by feeding Pearl Grit. It's the natural form of lime. Pieces are right size and shape. No odor or flavor to excite overeating. No dangerous foreign elements. No sharp splinters to inflame digestive tract. Obtain Pearl Grit No. 1 for chicks—No. 2 for half-grown and adult birds—from hatcheryman or feed dealer. 10-lb. cartons and 100-lb. bags. Keep it before your poultry every day in the year.

Ask for Valuable Free Book
Write postal or letter at once for Pearl Grit Book. Contains astonishing facts. Read it, and boost your poultry profits. Mail request today.

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Navy Brand Concentrated Buttermilk

From Tuberculin Tested Cows

28 per cent milk solids, 6 per cent tartaric acid, thick as custard with no foreign ingredients. Reduces toe-picking and lessens danger from coccidiosis. Increases egg production and promotes fertility and hatchability. Good for chicks, broilers and laying hens. Sold direct from the factory in barrels of about 455 lbs. Half barrels about 300 lbs. Write for prices.

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How to Keep Turkeys From Dying

Over 30,000 Turkey Raisers have found that Ray-zem helps take the bad luck out of turkey raising. Use it in the feed or drinking water, 1/4 teaspoonful daily for each 10 turkeys. Retail size \$1.00; pint \$2.50; 1/2 Gal. \$7.50. C. O. D. if you wish. Money back if you are not satisfied. Booklet Free.

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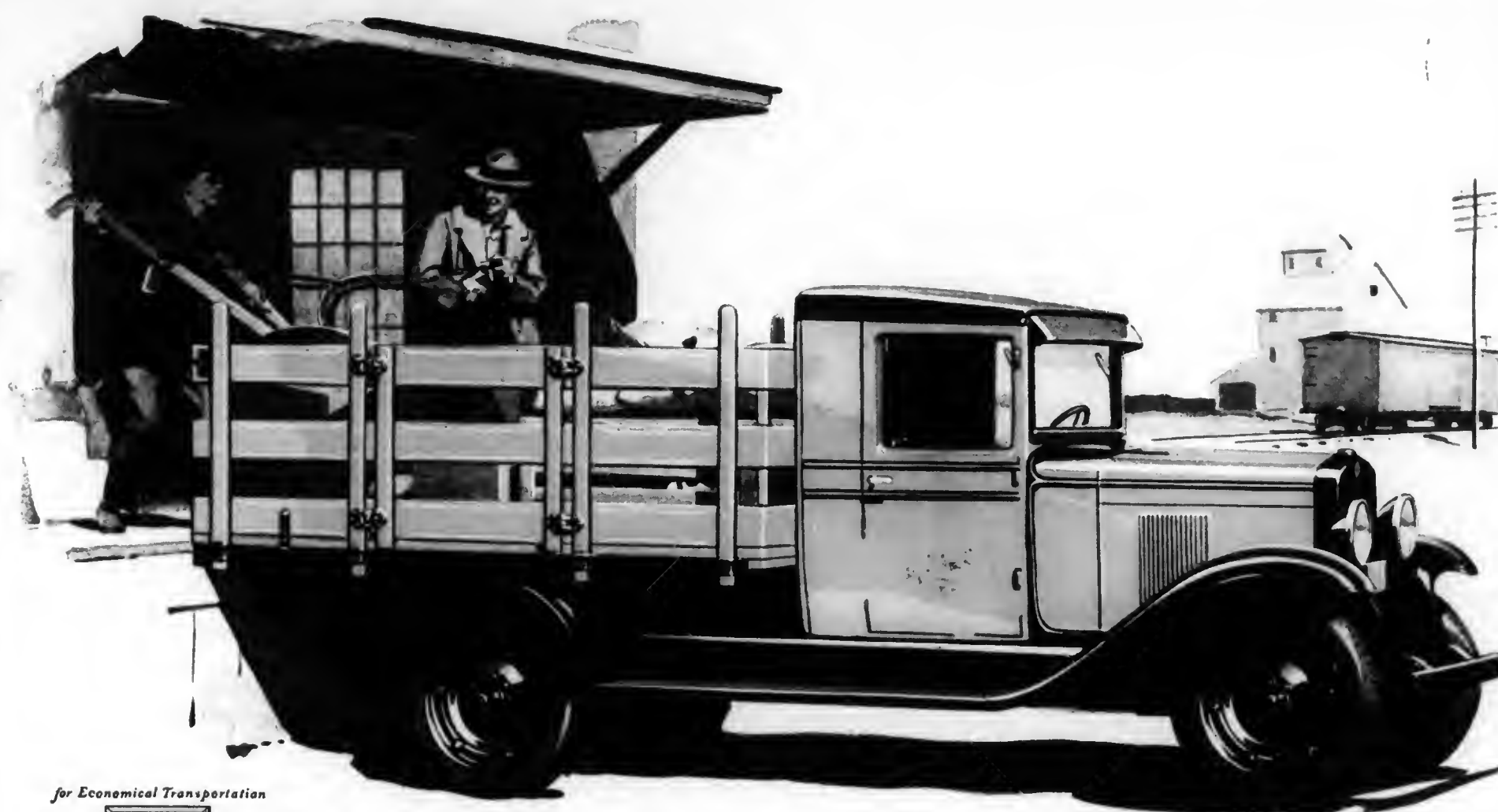
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Bourbon Poultry Medicine
For each chick daily, in drink or feed stimulates appetite, aids digestion, soothes bowels, promotes health, insures against disease infection, cures the most common ailments. Small size 60c, half-pint \$1.00, 1/2 Gal. \$1.50. Druggists, or sent by mail postpaid. Bourbon Remedy Co., Box 8, Lexington, Ky.

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The famous Chevrolet 6-cylinder valve-in-head motor has been increased in capacity to 50 horsepower—for extra pulling power on hills and bad roads—as well as faster pick-up.

New bronze bushed pistons—a new hot-spot manifold—and a heavier 48-pound crankshaft assure greater smoothness at every speed, less destructive vibration, and consequent longer life.

A bigger, stronger, more powerful rear axle makes Chevrolet stamina, reliability and durability more pronounced than ever before.

And, most impressive of all, Chevrolet's amazing fuel economy has not only been preserved—but maintenance costs have been reduced to an even lower level!

Add to all these outstanding qualities the time-tested efficiency of such famous Chevrolet features as the rugged over-size frame, the perfected 4-speed transmission, the powerful non-locking 4-wheel brakes, the full ball bearing steering mechanism—and you will quickly realize why farmers are turning with high enthusiasm to this latest Chevrolet achievement.

See your nearest Chevrolet dealer today. Get a trial load demonstration of this remarkable truck. Learn for yourself how much more it gives you—in power, in strength, in capacity and in performance—for every dollar you pay!

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If you could look behind the scenes, you would be amazed at the time and talent that go into the making of interesting, informative booklet offered by advertisers. Many represent years of study and research. These booklets and printed matter render real service. Write for them and mention this paper.

YOU CAN GET VALUABLE
INFORMATION FROM OUR ADVERTISEMENTS



The New OAKLAND EIGHT

PRODUCT OF GENERAL MOTORS



Illustrated above: The 4-Door Sedan - Body by Fisher

An Eight of Superior Performance and Remarkable Economy

The year 1930 will see many farmers driving their first eight-cylinder automobiles. And those who select the New Oakland Eight will find themselves enjoying a number of special

advantages. Among these are Oakland's superior performance and remarkable economy. For the engine of the New Oakland Eight is even smoother and more flexible than you might expect an eight to be. In addition, it develops full horsepower for each 37 pounds of car weight. That is the reason for its tremendous pulling power, its snap and getaway, its impressive speed on hill or straightaway. And this fine 85-horsepower engine, with its full down draft carburetion and manifold system, consumes no more gasoline per mile than many sixes of equal weight. Other sources of economy are its many features leading to long life. One is a short, rigid crankshaft which has no vibration period within the speed range of the engine. Another is a new two-plane cylinder head producing uniform impulses of uniform intensity. Main bearings are large and easily lubricated. Water jackets of unusual capacity surround the valves and pistons, affording, in combination with the new water recirculation system, exceptional cooling efficiency. And still other features which lengthen Oakland's engine life are a full pressure lubrication system, rifle-drilled connecting rods which supply oil under pressure to wrist pin bushings, and the crankcase ventilation system which keeps water out of the engine oil. See the New Oakland Eight now on display in the showroom of your Oakland-Pontiac dealer. Notice the smart beauty of their bodies by Fisher—the variety of their new Duco colorings. Then arrange for a demonstration. This we believe will make you an enthusiastic admirer of General Motors' lowest-priced eight.

\$1045

AND UP
Seven body types. Prices
f.o.b. Pontiac, Mich., plus
delivery charges. Oakland
Motor Car Company

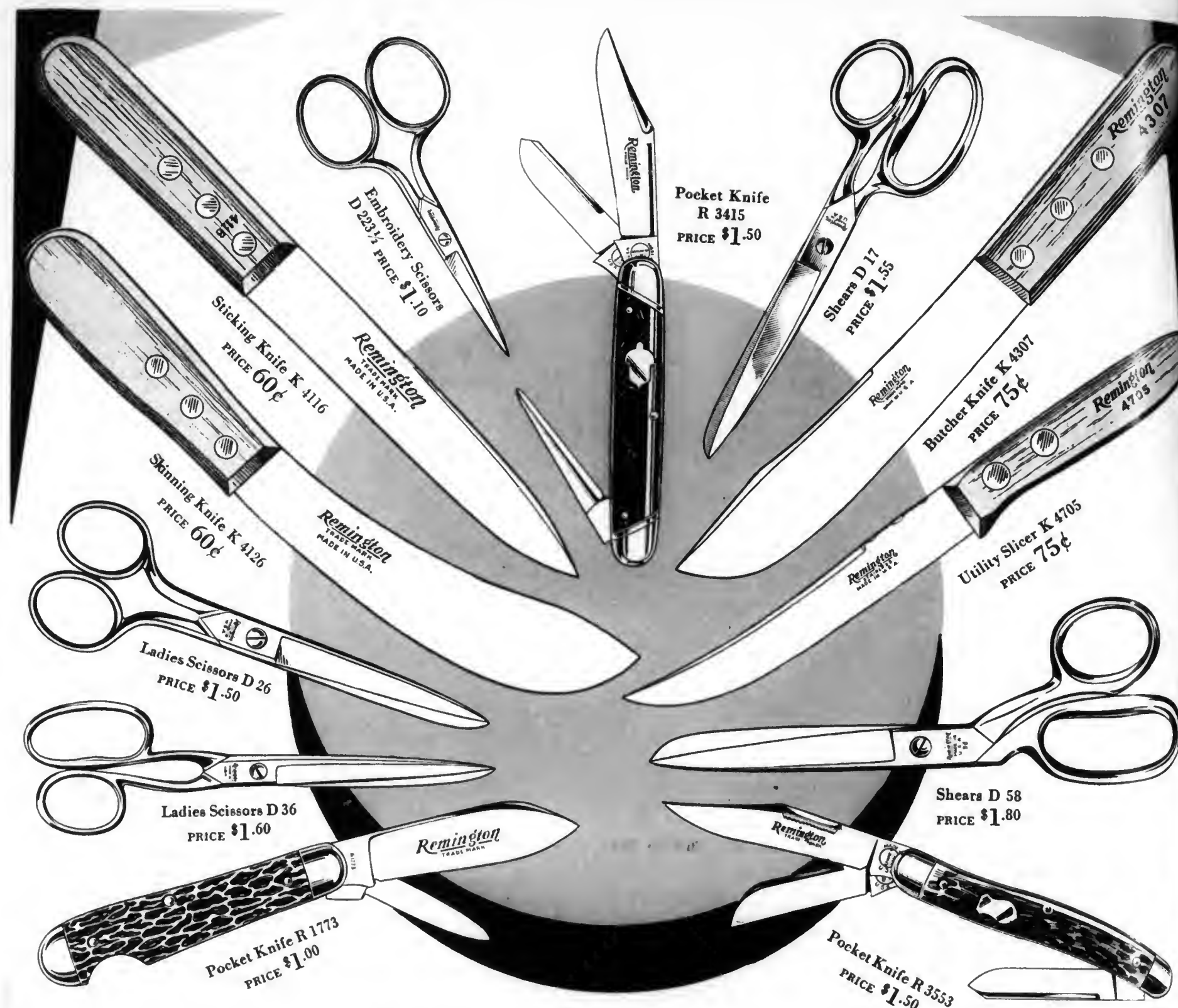
Write for an interesting booklet which illustrates and describes the design of the New Oakland Eight

Remember you can buy an Oakland on special G. M. A. C. terms
only on buyers exclusively, with payments at convenient
intervals during the year.

Consider delivered price as well as the list (f.o.b.) price when
comparing automobile values. . . . Oakland-Pontiac delivered
prices include only authorized charges for freight and delivery
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*superior
performance*





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REMINGTON makes a wide range of patterns designed especially for farm use. It pays to buy good cutlery—the only kind that Remington makes. Here are knives and scissors that are sharp. More than that, they'll stay sharp a surprisingly long while. And when the time comes for resharpening they'll take a keen edge.

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ity. Household slicers and paring knives are of Klein-blade (stainless) steel, with handles of walnut, or of Bakelite—a handsome material that looks as well in the dining room as in the kitchen. These knives have received the seal of approval from the Good Housekeeping Institute—a guarantee of tested quality.

Remington Cutlery is sold where good cutlery is sold. If you don't find it at your dealer's, send his name with the price of the items you select and they'll be forwarded promptly. Remington Cutlery Works, Bridgeport, Conn.



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Originators of Kleanbore Ammunition

Remington

April 19, 1930

PENNSYLVANIA FARMER

(585) 19

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Rack dried by natural process in our modern Seed House. Grown on our own 1400 acre farms. Tested for germination.

CASH—Very early, heavy yielder, deep grain, small cob, medium stalk, excellent for feeding corn.

CLARAGE—Mid-season variety, produces well, good grain, medium to large fodder, general favorite.

Also, have Blue Clarage, White Cap, Early Mammoth, Reids Yellow Dent and Ensilage varieties.

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LATHAM RED RASPBERRY
NEW LOGAN BLACK CAP
RASPBERRY
(More Resistant to Mosaic)
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These outstanding new varieties and the best of the standard kinds are fully described in our new catalog.

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Box P39, New Carlisle, Ohio

NO CROWS IN CORNFIELDS

Before you plant, treat your seed corn with **LIBERTY CROW SCAT**. Then crows and rodents won't bother it.

These pests stay away from fields planted with **CROW SCAT** treated seed.

CROW SCAT is harmless and easy to apply. It won't clog the planter, won't hurt the seed. Insures maximum germination.

You take no chances with **CROW SCAT**—for it is sold on a money back guarantee. It must keep crows away or it costs you nothing.

1/2 pint enough for 1 bushel seed \$1. 1 pint enough for 2 bushels \$1.50. Order today but **SEND NO MONEY**. Pay postman on arrival. We pay postage.

Apothecaries Hall Co., Dept. PFA
Waterbury, Conn.

Send me ... pint (state quantity) **CROW SCAT**. I'll pay postman on arrival. You are to return my money if I'm not satisfied.

Name _____
Address _____

Make Big Profits! SCOTT'S SOY BEANS

For soil improvement alone they pay for themselves. A valuable general farm crop. They make rich hay, pasture and nutritious silage and build up soil fertility. Will grow in poor soil. Any farmer can grow Scott's Soy Beans. Soy bean hay is richer in protein than any other annual crop of equal yield. Scott's Soy Beans are of high quality and cost no more than the ordinary kind. And besides—we pay the freight.

Our new Seed Guide is the best book we have ever offered. Write for your free copy today.

O. M. SCOTT & SONS CO.
Dept. 407
Marysville, Ohio

QUALITY FRUIT TREES at BARGAIN Prices

Buy direct—save money. Write for low prices and FREE Catalog showing fruit in Nature's Colors. Satisfaction Guaranteed.

KELLY BROTHERS NURSERIES
651 CHERRY ST., DANVILLE, N. Y.

Hoffman SOY BEANS

A crop to get acquainted with—for feed, forage and soil improvement. Almost a sure crop anywhere. Grows fast and fights weeds. Stands drought well—also considerable moisture. Six varieties including Wilson's Black and Manchu. Write for samples and prices.

A. H. HOFFMAN, Inc.
Box 414, Landisville, Lancaster Co., Pa.

Distant Pastures

By S. W. FLETCHER

NOW that spring actually has come, and the glories of a Pennsylvania summer are just around the corner, perhaps we may be permitted a calm and collected view of the recent super-heated land promotion activities in southern Texas. The borough of State College has fallen for them, and fallen hard. No less than a dozen of our reputable citizens, with bulging money bags (no college professors among them) journeyed to the New Eldorado, mostly on transportation provided by the promoters. Several returned with less gold but more real estate. If all of Pennsylvania was worked by these high pressure salesmen as thoroughly and effectively as this little borough, they reaped a golden harvest.

It is noticeable, however, that these expeditions to the Rio Grande are organized only in midwinter, when any land having a reasonable degree of warmth and sunshine looks fair as the garden of Hesperides to the hardy survivors of a Pennsylvania winter. But there is another side to the picture. How many Pennsylvanians would invest in Texas land, with a view to founding a home, if their introduction to it was in July instead of February? A comparison of the Lone Star and the Keystone states would be far more favorable to us in July than to Texas in February. Hot? Yes, hot; very hot, in fact. Flat? Yes, flat; very flat, in fact. A man who has lived among the green hills of Pennsylvania might pine away in southern Texas. He would miss them mightily, anyhow.

Pennsylvania Has Climate Too

This brings me to my first observation—that Pennsylvania is not disposed to take a back seat to Texas, or Florida, or California, or any other state, on climate the year around. Of course, it would be nice to drop down to Texas for a month or so, in midwinter, for a change; but that is quite different from living there all the year. I hope, moreover, that nobody will try to run a Texas farm from Pennsylvania. I know people who have attempted to operate an apple orchard in the North, in the summer, and an orange grove in Florida, in the winter. The scheme does not work. There are enough uncertainties in agriculture at best without adding the hazard of absentee ownership. Long range farming seldom pays.

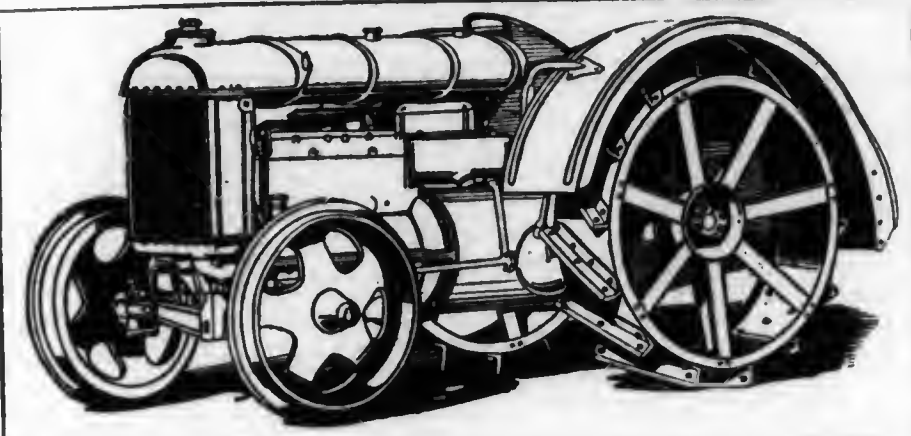
I am reading again, with keen appreciation, the literature of "The Magic Valley." "Literature" is the right word, for the prospectus certainly exhibits vivid flights of the imagination. My appreciation is more for the salesmanship craft than for the proposition itself. This prospectus, running true to form, is written in the red ink of superlatives.

How Figures Talk

In the bright lexicon of "The Magic Valley" there is no such word as conservatism—not yet. If one grapefruit grove nets \$1,000 an acre this year, it necessarily follows that all other grapefruit groves, even those yet to be planted with the 6,000,000 young trees still in the local nurseries, will net \$1,000 an acre annually. If a seven-year-old avocado tree produces



Fordson



Features of the Improved Fordson

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|--------------------------------|--|
| 1 More Power | 10 Hot Spot Manifold |
| 2 Easier Starting | 11 Heavy Fenders and Platform—Standard Equipment |
| 3 New Cooling System | 12 Sixteen Plate Transmission Brake |
| 4 New Lubrication System | 13 Steel Steering Wheel—Hard Rubber Covered |
| 5 New Ignition System | 14 Shock Absorbing Front Coil Spring |
| 6 Large Air Washer | 15 Automatic Lubrication of Rear Wheel Bearings |
| 7 Redesigned Transmission | 16 One Piece Cast Front Wheels |
| 8 Longer Wearing Crankshaft | |
| 9 Improved Gasoline Carburetor | |

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We still have some available territory open for live dealers. If interested communicate with us promptly.

G. M. STULL COMPANY DISTRIBUTORS, CHESTER, PA.

G. M. STULL COMPANY,
CHESTER, PA.

Please send complete information and literature on the Fordson

Name _____
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MEN wanted to join our School of Tree Surgery. Good pay while learning.



We have openings right now for young men ambitious to learn a splendid, uncrowded profession with a real future, good pay and unlimited opportunity. If you are between 18 and 30 years old, single, strong and willing to work, we want you in our new classes in Tree Surgery. Write for full information. Within a week after you start, we pay you good wages. All instruction, books and tools are free. You earn while getting your schooling. This is permanent, year-round work, under the direction of the F. A. Bartlett Tree Expert Co., the fastest growing organization of its kind today. Write for booklet, "The Bartlett Way to Success." Enroll today.

THE BARTLETT SCHOOL of TREE SURGERY
Under direction of the F. A. Bartlett Tree Expert Co.
Box R Stamford, Conn.

"NON-WRAP" SPREADER For BIGGEST CROPS



This Spreader Cannot Wrap and therefore makes an Even Distribution of any kind or condition of manure. Strongly built; Roller Bearings make it exceedingly light running. Ask for Bulletin showing how the "Non-Wrap" makes the most money with the least labor.

A. B. FARQUHAR CO., Limited, Box 846, YORK, PA.

THE YOUNG PEOPLE

Why I Am Leaving the Farm

Dad Collects the Profit First Prize

I AM going to leave the farm because I have always had bad luck in anything I have tried to raise or do. I have worked for other people, earned quite a lot of money, and my father collected the money.

When I tried to raise crops I would never be able to sell or keep it because Father always said I would get my pay in food and clothes.

I had a dog one time and it was just large enough to be a great play-fellow. One day when I was away from home a man came to our place and gave my father five dollars for the dog. When I got home and went to the barn to feed him, the dog was not there. I ran back to the house and asked my mother what became of my dog and she said Father had sold him. When I heard this I can't tell you how I felt to think my playfellow was gone.

It was not only my pets my father sold, but everything I raised—pigs, chickens, ducks, sheep and some calves—they were all sold and it was the same old story.

Now, if that isn't enough to turn any boy from a farm I don't know what is. Disappointed Boy.
Pennsylvania.

NO TIME TO PLAY Second Prize

I'M going to leave my father's farm because I have to work in the barn; because I have to spade and hoe, and doing that I cut my toe.

I have to pull and hoe the weeds. And then help out with the kitchen needs. After that it's this and that—

So you see the reason I'm leaving Dad. "Now water the horses and milk the cows." That all comes with the daily wows. "Chase out the ducks, chickens and geese." "Look after the sheep and watch their fleece."

"Now mow the lawn and gather the eggs." That's too much strain for my young legs. "The chicks will need some water too." And that was all I had to do.

Then for once I start to run and play—Gosh, there are the pigs coming my way. So I feed the pigs and turkeys too. Now isn't that all for me to do?

"No, take old Nell and make some hay." "And just forget about the play." "And spray the spuds and hoe them too. Now isn't that all for me today?"

So why am I going to leave the farm? With work to do and all that yam. With not a pleasure nor a play. Now can you expect me with Dad to stay? Pennsylvania. Frank Vogenlek.

Congress Needs Some Pep Third Prize

I AM going to leave the farm because I think boys have a better chance to get an education in the city. I want to save my money for a college course. I think I should like to study law and become a lawyer. I like to read stories about the men of history who became great lawyers and afterwards generals or president.

The farmer has a very important job because he raises our food. But Dad knows how to handle our farm.

I hope to get a seat in Congress some day so I can help argue the Farm Relief bills for they sure do need some one who has a little pep. Then if Dad is still living it will help him back home.

That's why I want to leave the farm—I think I can help my father after I have become a congressman. West Virginia. Charles E. Hovatter.

What Manners Mean to Me

First Prize

WHAT do manners mean to me? They mean as much to me as to any self-respecting girl. They mean popularity, respect and a definite feeling of self-satisfaction in doing one's best.

Manners mean much. But they are not a gift, they have to be cultivated. If a person is determined to cultivate her manners, she will do it, but if she only thinks she will do it, it will not be done. Things are done by doing not by thinking.

The person who is well brought up may go anywhere and not feel any embarrassment. Breeding and manners show in every action.

Everywhere a girl may go, her characteristics are brought out by the way she acts. If she is at home, the hospitality she shows to a visitor often leaves an impression which may be imparted to others and increase her popularity.

In the dining room her behavior at the table and the conversation she carries on will, if it is mannerly, gain for her the esteem of the people present.

If, while she is in a street car, she gives up her seat to an elderly person, she has won her respect and the respect of the people in the car by her thoughtfulness.

When she has done her best, she is better satisfied and does not have to look back with pangs of shame, wishing people would forget. But though people forget, or think badly of an unmannerly person, they do not forget a polite, thoughtful, or courteous person and as a reward, her reputation grows as she goes along and may bring her one day her most valued opportunities.

Using such a person as an example I have tried to show what manners mean to me. From this it may be seen that manners form one of the rungs on my ladder to success.
New Jersey. Lily Brodsky.

GOOD MANNERS CONTEST

Second prize.—Bernice Fleming, Pennsylvania.
Third prize.—Mary Simpson, Pennsylvania.
Fourth prize.—Pearl Conaway, Pennsylvania.
Fifth prize.—Arlene Quay, Pennsylvania.

Do You Know Your A B C's?

THE blank spaces can be filled in with letters of the alphabet and the meaning will be clear. There is

still a very fine fountain pen waiting for the boy or girl who sends in the correct answers, accompanied by the best letter with suggestions for improving the Young People's page.

This isn't as hard as it looks and just to encourage you timid ones, we have given the letters in the first two lines. Who needs a good fountain pen? Two letters are needed in each blank space.

The farmer leads no E Z life.
The C D sows will rot;
And when at rests from strife
His bones all lot.

In has to struggle hard
To living out;
If frosts do not retard
His crops, there'll drouth.

The hired has to pay
Are awful too;
They rest when he's away.
Nor work will do.

Both cannot make to meet
And then for takes
Some boarders, who so eat
& no money makes.

Of little finds this life;
Sick in old lies;
The debts he leaves his wife.
And then in dies.

Send your answers to Puzzle Editor,
Pennsylvania Farmer, 7301 Penn Ave.,
Pittsburgh, Pa.



Drawn by Coreta R.
Will this artist please send his name and address.

ANSWERS TO POULTRY QUESTIONS

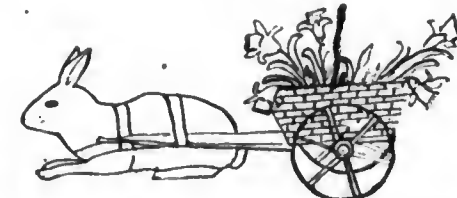
Plymouth Rock, Games, Bantam, Red (Rhode Island Reds), Spanish, Wyandotte, Hamburg, Red Cap, Leghorn, Java, Polish, Crow, Cardinal, Ore., Concord, Ill., Lincolnton, Night Hawk, Chester White.

Prize Winners

Gold pencils were sent to these winners who sent in correct answers and contributions to the Young People's Page:
Lloyd Eckert, Eleanor M. Caring and Alice M. Cope.

"Do you know Lincoln's Gettysburg address?"
"Why, he lived in Washington!"

Those who can—do. Those who can't—criticize.



Contributed by Pearl Brown, Penna.

Little Folks' Corner



The Easter Bonnet

By Gertrude Wilson, New York

Colored by

Address

R.F.D. Age



WHEN THE PET LAMB GREW UP
Third Prize—Hope Lehigh, Pennsylvania

PASSING EVENTS IN PICTURES



(Copyright by Underwood & Underwood)

Upper left.—An especially posed and personally approved portrait study of Sir Ronald Lindsay, newly appointed British Ambassador to the United States, photographed in his full dress formal uniform in which he paid his first call and presented his credentials to President Hoover at the White House.

Upper right.—First photo of the model of the proposed National Archives Building which is to be erected at Washington to provide a secure storage place for valuable historic documents, many of which are now stored in makeshift quarters.

The model is now on exhibition at the Treas-

ury in Washington.

Center.—Philadelphia, Pa.—This photo shows Kathryn Rabe of Haddon Heights (N. J.) High School, runner-up, and James Christie of Chester (Pa.) High School, winner of first prize, at the fourth annual Pierce Interscholastic Spelling Championships held here. Miss Rabe missed out on the word "filigree" which was correctly spelled by Christie.

Lower left.—Winsome little Miss Lois June Allen, five-year-old daughter of a former A. E. F. veteran and now a guest at the Veterans of Foreign Wars National Home at Eaton Rapids, Mich., opens the 1930 sale of Buddy Poppies by

pinning one to the lapel of President Herbert Hoover at the White House in Washington.

Bottom, center.—Burbank, Calif.—America's first all-metal low-wing cabin monoplane, designed by James K. Northrop (who created the "flying wing"), and which is being tested here. The 425 h. p. Wasp motor is expected to drive the new ship at a top speed of 180 m. p. h. and a cruising speed of 150 m. p. h.

Right.—Boston, Mass.—Photo shows a mighty monster of the Atlantic—an odd shot of the liner "Leviathan" as she reposed in her berth at the South Boston drydock where she is being repainted and generally overhauled for the coming tourist season.



PAINTS and PANTS

Buying a can of paint is like buying a pair of pants. One you put on the house and the other on yourself but in both you're looking for the same results. You want coverage. You want good looks. You want durability—you want the pants to stay on you and the paint on the house for a long time.

For best results buy good pants from a good clothing store and Felton-Sibley paints from your Felton-Sibley dealer.

FELTON, SIBLEY & CO., Inc.
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Ready Mixed Paints

150 DAIRY COWS 150

Wisconsin Cows, Springers, Holsteins and Guernseys. T. B. and abortion tested and checked to ship to any state. Private Sales April 24th and 25th. Auction 10:00 A. M. April 26th. WISCONSIN HORSE & DAIRY CATTLE SALES CO. Frevor, Wisconsin.

56 mi. northwest Chicago, 45 mi. southwest Milwaukee

DAIRY CATTLE

Two Reg. Guernsey Heifers 11 and 20 months old. Bull calf born April 1. Accredited herd. L. O. KIDDER, Quaker City, Ohio.

REG. GUERNSEY BULL CALVES, by our three best sires whose dams average 950 lbs. fat—18-2000 milk. Write for pedigrees and prices. F. B. HARTZELL, Mgr., Riverview Farms, Swanton, Pa.

GUERNSEY BULLS, Registered, "Border Riders" and "Langwater" breeding. Accredited herd. Rosalea Farm, R. 2, Box 44, Coraopolis, Pa.

REG. GUERNSEY BULL CALVES—Langwater breeding, high records buck of them. Farmers' Prices. A. J. FELL, Lansdale, Pa.

Registered Guernsey Bulls, one of service age. Three females. Federal accredited. John C. Sarver, R. D., Millerstown, Penna.

For Sale—Jersey Bull Calf dropped 2:20:30. Solid color, long deep body and straight back, sired by grandson of Rybil's Gam. Long and out of him with official test of 10,000 lbs. milk, 522.02 lbs. fat, averaging 5.04% at 4 years. Price \$125.00. Federal accredited herd and blood tested. Highland Farms, Greensburg, Pa.

For Sale Two Registered Jersey Bulls, one year old, ready for light service, Oxford and Golden Maid Prime breeding. Dams are now on official test and going strong. Federal Accred. Herd. H. E. Athey, Reedsville, Md.

TWO GOOD JERSEY heifer calves, 2 and 3 months, from extra cows. Accredited herd. W. E. McFARLANE, Fumess, Pa.

FOR SALE Purchased Holstein cows and heifers. Fully accredited. Gilfoyle Bros., Ulster, Bradford Co., Pa.

AYRSHIRE CATTLE of the best blood lines. Herd T. B. Accredited. Animals of both sex and all ages. Geo. B. McConnell, Wellington, Ohio.

HORSES

HYLLMEDE FARM BELGIANS A six-year-old Grand Champion Stallion, Mare, two, three and four years old. Priced reasonable. Inspection urged. **HYLLMEDE FARM**, Fred H. Cook, Manager, Beaver, Pa.

REGISTERED PERCHERON STALLIONS—2,100-lb. Son of Heilston, also others. B. C. DOTY, Sen., Mill Hall, Pa.

Farm & Dairy

By L. W. LIGHTY

CONTROVERSY is an excellent sharpener of wits, but often at the end we know less with assurance than at the beginning of the argument. Fifty odd years ago I was considered an expert debater and our lyceum met weekly where we shredded all the questions extant. Rather often I convinced the judges that my argument was the best. What was worse, I convinced them it was true when I did not believe it myself but had to hang to my party. These experiences convinced me of the futility of controversial argument to find truth. Any one who has followed the argumentation in our U. S. Senate must be convinced of this.

I feel that my friendly critic R. I. Weigley knows all this, but he loves argumentation so much he is ready to take the hopeless side of the question. Doubtless he would have been a stiff opponent had he met with us in the old Academy more than half a century ago.

As I write this I look out the window to see my neighbor spreading his straw pile with the manure spreader, which he has rigged for the purpose, and it is an easy job which he often does. The sharp coulters on the tractor plows cut the straw, and the plows are so adjusted that between each pair of furrow slices is a light layer of straw which on disking will be completely incorporated with the soil and render it much more retentive of moisture, while the edge of the furrow slice sits on the subsoil and there is not the slightest interference with the subsoil moisture.

That Antique Manure Pile

When some old champions that old rain-soaked, cow-tramped manure pile has a hard row to hoe. In this day that argument needs crutches.

Way back in 1889 a bulletin came to me from the Cornell Experiment Station where the chemists had kept track of several such manure piles which were left only six months to weather and "cure." The result was loss in weight 57 per cent, loss in nitrogen 60 per cent, loss in phosphoric acid 47 per cent, loss in potash 76 per cent. The valuation had decreased from \$2.80 in the start to \$1.06 per ton when hauled out on the land. A number of other observations reported in the same bulletin indicated a very great loss in every instance.

As a struggling farmer that set me to thinking forty years ago. Since then dozens of similar reports have come from many entirely reliable sources confirming the Cornell findings, so that today few farmers allow manure to accumulate unless they can care for it in a shelter and control the moisture supply and the fermentation.

The manure is taken out and spread on the fields where it belongs and there it is well cared for. That dark liquid that my friend points to coming from the field in the runoff water has been examined by the chemist folks and often there are only traces of fertilizer constituents in it, rarely enough to consider. The coloring matter is not plant food.

Relative to poking run at the college man our friend has got me all wrong. My only college experience was that of a visitor and I am accused of too much "fun poking," but I would rather laugh than groan. But no man appreciates and honors the real scientist and investigator more than do I. Where would we be in our soil work but for the great work of a line of chemists and investigators from Liebig, 1850, down to our own Storer, King, Johnson, Hilgard and many others? Would we still buy fertilizer by the odor? But look at the results of putting the findings of the scientific investigators into practice on the farms of this country. The only question now is to dispose of the things we produce on the land.



'Anything else, Sir!'
'No! what else could I want?'

WELL NOW what could he, my friend, want? Here he is in the Hamilton Hotel. His room is furnished right up-to-the-minute. He has a bath and a private bath, white as snow. He has service a-la-carte. He is in an atmosphere of friendly individualism. He has a spacious, beautiful lobby at his disposal. He knows that he is getting \$5.00 worth of comfort and luxury for only \$3.00 a day.

Makers of tubs, tanks and vats
UNADILLA SILE COMPANY
Box P. Unadilla, N. Y.



In... Washington, D. C.

The CAIRO Single rooms: \$2 to \$3.50 Double rooms: \$4 to \$5.00
The HAMILTON Single rooms: \$2 to \$3.50 Double rooms: \$4 to \$5.00
The MARTINIQUE Single rooms: \$2 to \$3.50 Double rooms: \$4 to \$5.00

Reduced rates by the week or month.



Spavin Get rid of the lameness and the...
FLUORIDE BLENDED PASTE NO. 5...
FLEMING BROS. 8-133 Stock Yards, Chicago

Jim Brown's NEW KIND OF FENCING...
THE BROWN FENCE & WIRE CO. Dept. 278-A, Cleveland, Ohio

A LIFETIME ROOF...
ARMCO IRON ROOFING...
AMERICAN Iron Roofing Co. Dept. 48, Middletown, Ohio

I will condition a Horse or a Cow in twelve days...
P. O. FAUST, BRYN MAWR, PA.

ADVERTISING is the modern intelligencer. It keeps you informed, advises you of new things, suggests new uses for articles you already own, and prepares you today for wise and useful purchases tomorrow.

STORM-PROOF...
THE ECONOMY SILE & Mfg. Co., Dept. A, Frederick, Md.

RAISE HOGS CHEAPER...
THE HARGROVE CO....
W. H. Rupp...
Francis Sattizahn, A. L. Hacker, Tester, County Agent.

COUGHS & COLDS...
SPONH'S COMPOUND...
SPONH MEDICAL CO., Dept. E-7, Cooke, Ind.

AMAZING Healing Ointment...
CORONA MFG. CO. 260 Corona Bldg., Boston, Ohio

More Milk with A ROSS SILO...
ROSS Cattle Co., Springfield, Ohio (Established 1850)
Check items wanted: Silos, Cribbs, Brooder Houses

Low in Protein...
Mrs. L. M. Boyd.

YOUR cow apparently gets no succulent feed such as silage, beets, mangels, etc. You could remedy this item by purchasing some dried beet pulp. Soak three to five pounds of it for twelve hours in a gallon or two of water. Then mix the grain feed with the soaked beet pulp just prior to feeding.

Your grain mixture is too low in protein. Corn and oat chop contains only about 10.5 per cent of crude protein. Your cow is evidently getting timothy or mixed hay and with such roughage as this a grain mixture containing from 20 to 23 per cent protein would be more efficient for milk production purposes.

I would suggest that you mix 200 pounds of chop with 100 pounds of cottonseed meal or gluten meal and 100 pounds of linseed oilmeal or soybean oil meal or peanut meal. Feed the cow one pound of this grain mixture for approximately three and one-half pounds of milk if she is a Jersey or a Guernsey. Feed her one pound of grain for approximately four pounds of milk if she is a Holstein or Ayrshire or Brown Swiss.

The cow would give a more liberal supply of milk if you had clover hay or alfalfa hay instead of timothy or mixed grass hay. Nothing can probably be done about the hay proposition at this time of the year, but if you can provide clover or alfalfa hay for next year's feeding you will have much better roughage.

Which Is More Profitable...
A. A. Borland.

am starting on a large farm and would like some advice in regard to which is the more profitable, selling milk to a condenser, or raising calves and selling them. Veal sells here readily. Would cows milk as long with the calves as by hand milking? Cows to be fed for milk in either case.

Frank Brooks.

Low in Protein

I have a cow that freshened five weeks and two days too soon. She got along well, gave two gallons of milk daily for about six weeks, then she failed in her milk and is getting poor in flesh. Has all the hay she will eat. I also feed her chop. Would like to know the cause and what to do.

Mrs. L. M. Boyd.

YOUR cow apparently gets no succulent feed such as silage, beets, mangels, etc. You could remedy this item by purchasing some dried beet pulp. Soak three to five pounds of it for twelve hours in a gallon or two of water. Then mix the grain feed with the soaked beet pulp just prior to feeding.

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Frank Brooks.

SINCE you do not state the price of milk at the condenser, or the price of veal calves, I could not tell you which would be the more profitable.

Under ordinary circumstances I would judge that selling milk to a condenser would be the better proposition, but without any note of prices you can readily see that this would simply be a guess.

It is doubtful if cows will milk as long with calves as by hand milking. The calves are not likely to milk the cows so thoroughly as by hand milking and this will have a tendency to dry up the cows.

A. A. Borland.

Cow-Testing Ass'n Report

Lehigh County

THE Lehigh County Cow-Testing Association finished its sixth year March 1, 1930, with seventeen whole-year and two part-year members.

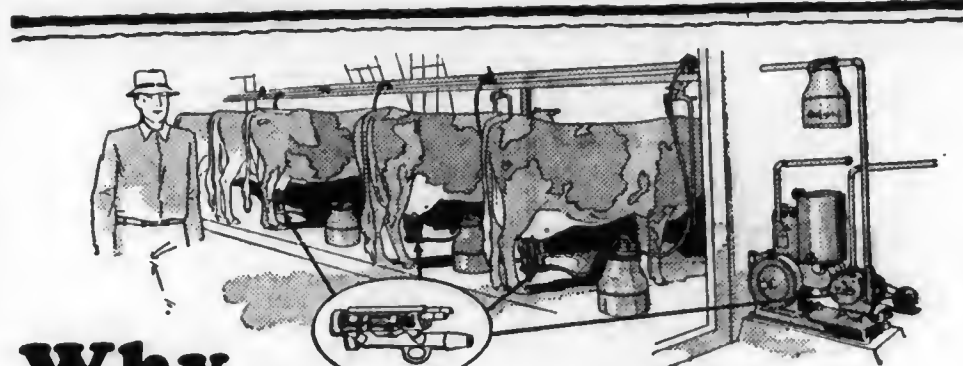
The result for the six year's testing is as follows:

| Year | Av. No. Cows | Lbs. Milk | Lbs. Fat |
|------|--------------|-----------|----------|
| 1925 | 260.51 | 8159 | 274.5 |
| 1926 | 236.24 | 8056 | 271.8 |
| 1927 | 236.25 | 8623 | 292.1 |
| 1928 | 189.62 | 5798 | 302.8 |
| 1929 | 259.47 | 8110 | 279.3 |
| 1930 | 229.73 | 8190 | 297.7 |

Six herds with an average of five or more cows exceeded an average production of 300 lbs. of butterfat. A complete list of these herds follows:

| Owners | Breed | Milk | Fat |
|--------------------------|-------|--------|-------|
| Gen. Harry Trexler | R.H. | 7,404 | 383.3 |
| Harold Ziegler | R.H. | 10,583 | 351.4 |
| Allentown State Hospital | R.H. | 10,616 | 338.7 |
| Edna Able | R.H. | 9,701 | 321.3 |
| Saucor Farms | R.H. | 9,215 | 310.9 |
| Wm. H. Rupp | R.H. | 8,897 | 300.2 |

Francis Sattizahn, A. L. Hacker, Tester, County Agent.



Why Magnetic Force is used in the New De Laval Magnetic Milker

IN the new De Laval Magnetic Milker the important function of creating and controlling pulsations is performed by magnetic force. There is no other method so perfectly qualified to meet the requirements of milker pulsation control, for magnetic force possesses everything desired—unfailing dependability, sensitiveness, instantaneous response and simplicity of application.

Perfect, uniform, fast and regular milking is largely dependent upon pulsations. They must be regular and absolutely uniform. Irregular pulsations have the same effect on the cow as a change of hand milkers. Through the use of magnetic force, timed positively by a gear-driven cam in the pulso-pump, pulsations in the De Laval Magnetic Milker are uniform and regular to a split second. No matter how many units are in operation at one time, every pulsator moves as one. Every cow is milked the same at each milking with resulting beneficial effects.

For perfect milking, the saving of valuable time and labor, and the substitution of pleasure and satisfaction for drudgery, the De Laval Magnetic

Milker is distinctly in a class by itself, offering new high standards of milking. Outfits for milking one to 1000 or more cows. Operated either by gas engine or electric motor.

The De Laval Utility Milker For the Low Price Field

The De Laval Utility Milker, designed for the lower price field, is a quality milker ideal for small herd owners with whom price is a limiting factor. De Laval Utility units operate on any single pipe line, a fact of importance to dairymen who want the advantages of De Laval milking, but who feel that they must retain a part of their original investment.

Free Trial

A trial of a De Laval Milker places you under absolutely no obligation. See your De Laval dealer or send coupon for complete information.

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Chicago, 600 Jackson Blvd.
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Please send me, without obligation, full information on: ☐ Milker ☐ Separator ☐ Check which
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Town.....
State..... R.F.D. No. Cows.....

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Calves—Cows, 2 @ \$16.00
 Calf was about 850 head.
 Bulls brought \$13.50, seconds
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**by refraining from
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LUCKY**
instead

"It's toasted"

Your Throat Protection — against irritation — against cough.

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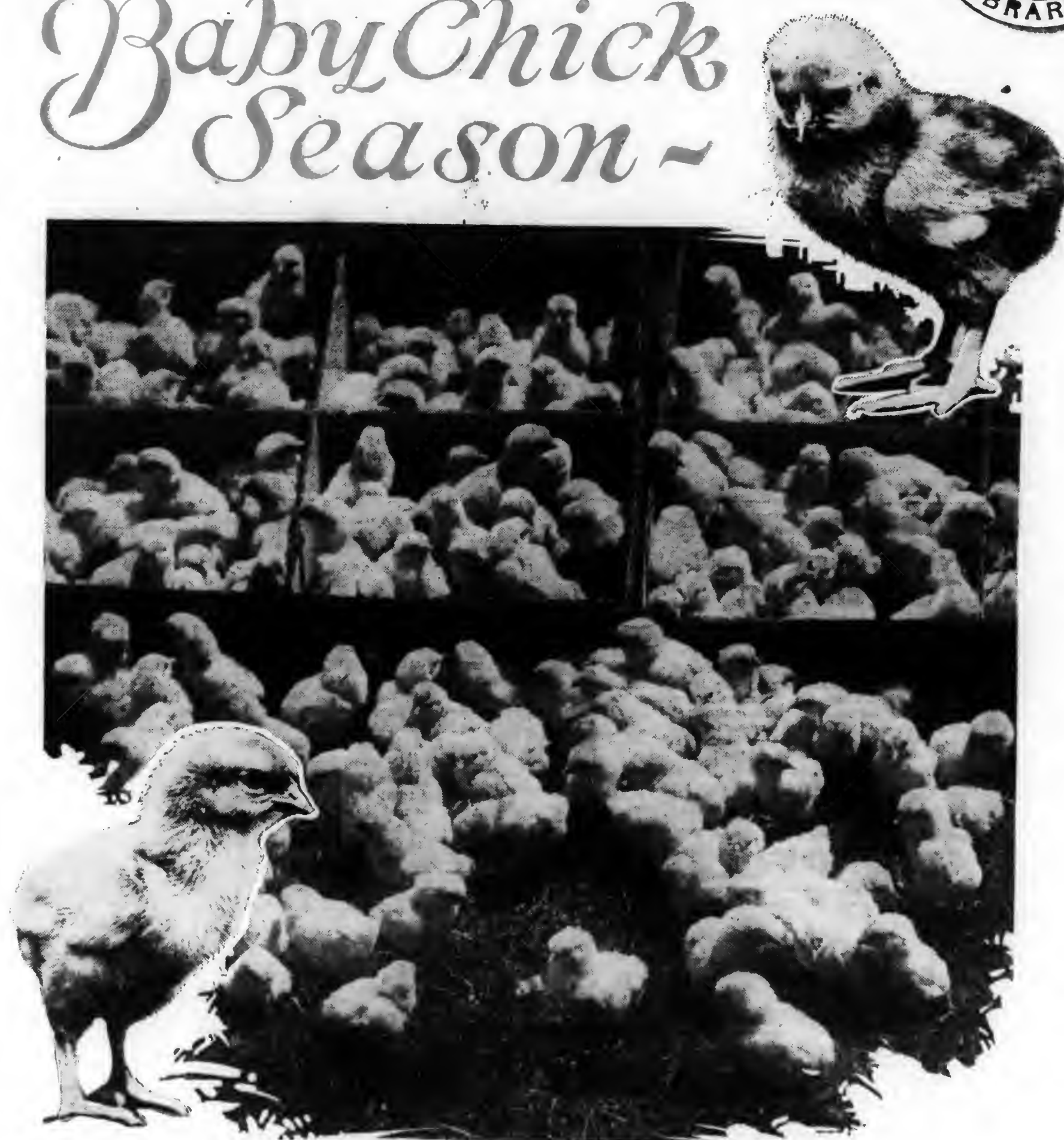
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April 26, 1930



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when this machine goes to work on your farm



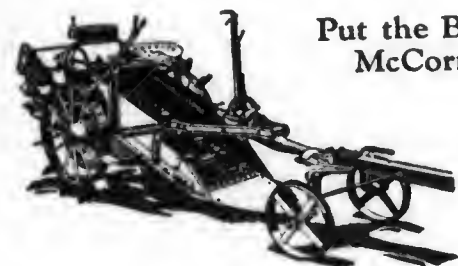
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It digs the potatoes, shakes dirt off, and puts them in easy-to-gather rows. Does away with a lot of hired help. The correctly designed shovel gets all the potatoes. Durable made to stand up under hard work. Write for a folder.

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"15 acres of corn—only 3 or 4 hills lost"



—writes A. B. Wilmont, of E. Thetford, Vt. Crows and other pests had picked on his corn field—until he coated his seed corn with Stanley's Crow Repellent. No need to wait for Stanley's Crow Repellent to dry. Does not clog planter, nor injure corn. Non-poisonous. But absolutely keeps out moles, crows, gophers, squirrels and other pests. Large size can for 2 bu. seed-corn (3 to 10 acres) \$1.50. Smaller size \$1.00. If your hardware, drug or seed dealer hasn't a stock, order direct. Address The Cedar Hill Formulae Co., Box 500R, New Britain, Conn.

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The Little Wonder Weed Exterminator will positively destroy them.

A spraying solution (not a chlorate); costs only 6c per gallon; will not ruin the soil nor kill cattle. Write for free illustrated booklet.

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A crop to get acquainted with—for feed, storage and soil improvement. Almost a sure crop anywhere. Grows fast and fights weeds. Stands drought well—also considerable moisture. Six varieties including Wilson's Black and Manchu. Write for samples and prices.

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Box 424, Landisville, Lancaster Co., Pa.

Farm Facts and Fancies

By ALVA AGEE

IT isn't the thing to do any hedging when critics of our experiment stations and extension forces point out that the activities of scientists are directly responsible for the surplus of farm products that depresses prices. We do not meet the criticism squarely when we say that the aim is to produce what is needed on a smaller area. If that is the aim, certainly the man behind the gun is a poor shot.

If I could grow four hundred bushels of potatoes per acre on five acres, next year I should plant ten acres to double up on net profit. It is a fact that our experiment stations, our extension work and our farm papers have contributed heavily to the present output of American farms. If it were not so, we should be chagrined: being so, the truth should be granted.

Doubling Capacity

I have been saying a-plenty about the national policy of developing public land into farms when not needed, and hope to say more as the policy continues, but all the addition to our supply from this source can be only a small fraction of the present increase in production over what it would have been if the use of fertilizers had not been developed. The improvement of seed, the immense gains from breeding, the control of disease and insects—the list of forces at work to increase our food supply is too nearly endless to try to mention.

The last I name, and the biggest of all, is the results of inventive genius that lifted us out of the day of the grain sickle. All of these forces are of one sort, leading to continuous expansion of production up to the point that no matter how population increases we hold prices down close to cost of production, throwing in a lot of labor and capital without any accounting. It is so.

As to the Criticisms

Nobody rises today to complain that inventors got us away from the use of the hand-sickle in harvesting wheat. Why not? If we had to depend on it there would be no surplus at several dollars a bushel. We should not have any surplus of milk if our dairy breeds had not been developed to present capacity. Equally we should be wearing homespun clothing if science had not been availed of by others. If our level of living has been raised greatly by increase in productive power among other classes of workers, agriculture must be likewise affected by progress. There is no basis for argument in this matter, and there is no one to blame, if we except governments and policies in Oriental countries that do not give their people earning power.

Then what is the matter with farming? Simply this: All human wants, except in respect to food, have no limit, and those supplying them can make money in doing so. When a man is full of food, all the enterprise and advertising and selling schemes cannot increase his consumption very much. He is full, and that is all there is of that.

What Would You Have?

Would you choose to be in an occupation that had no share in the world's progress, and that could attract and hold only those who are mentally dormant? You would not. A man must have room to use all his skill or he will feel crowded if he has any size worth mentioning. The only course open to the individual is to use all that science can offer him, depending on his ability to hold his own.

He can take the world as it is in this respect, or leave it, but he cannot isolate agriculture as something that will not take its share out of scientific progress just as all other industries do. His best friends are those who know the most of what he needs to know to hold his own. Seems a hard world? Yes, seemingly it may be, but if it were otherwise we should be way back of where the Indians stood when we stepped in and took their land from them. Doubtless they thought it was a hard world.

Incidentally it may be worth mentioning that it would have been easier for the Indians when we were taking their land, and easier for us today, if we had taken less.

Farm Papers

Accepting the fact that farming is an occupation appealing to intelligent people, sometimes I quite idly try to rate the relative values of the educational forces that have helped to make it what it is. A large group of studious and energetic farmers helped to make our farm papers influential. They contributed experience and observation and they created the public sentiment that made experiment stations and agricultural colleges possible, or at least put them in the way of financial support by public funds. The farm press has continued to be the surest support of these institutions.

At the same time it has brought forward the facts that men on farms gain through experience, and quite possibly the advertising columns of the agricultural press have contributed as much to stirring us to do things as have all the men who have talked on platforms. Colleges, stations and the farm press pull in the same direction, and the last one named exerts the widest influence because it is the nearest to millions of good farmers in their homes and on their farms.

Fertilizing Corn

A subscriber has a ten-acre field that he is going to plant to corn by hand. A heavy sod was plowed down last November. He proposes to broadcast 20 per cent phosphate and put a little nitrate of soda in the hill. I suggest that he apply 150 pounds of the superphosphate broadcast, and put 100 pounds in the hill. I should mix enough nitrate of soda with the phosphate going in the hill to make the percentage of nitrogen one-third that of phosphoric acid in the mixture. It is entirely possible that a heavier application would bring more net profit, but land that grows a heavy sod for plowing down is pretty good land anyway.



Flock of Cheviot ewes on Lewis F. Nicholas' farm in Northampton county, Pa. Individuals of this flock have been winners at Reading, Allentown, Trenton and Maryland State Fairs.

Eastern Farmers and the Farm Board

FARMERS of the eastern seaboard states are hearing the answer of the Federal Farm Board to their query: "When do we share in federal farm relief?" and that answer may be condensed into one word, "Wait!"

Dr. Frank B. Bomberger, until recently chief of the Maryland State Department of Markets and now in charge of cooperative marketing organization work for the Federal Farm Board, told an audience of wheat growers in Delaware recently that the Board could do nothing for the eastern farmers until its more pressing problems in the West and South had been solved.

In reply to a pointed question as to what the grain growers of Delaware and Maryland might do to market their wheat through the marketing machinery set up by the Board, he said, "Wait." He amplified this, of course, by explaining that the National Grain Corporation does business only with regional groups. There are no regional grain marketing organizations in the East at this time, though it is hoped that one or more may be organized during 1930.

Preliminary Studies

The Board, apparently, is coming around to the idea that it will be impossible to organize cooperative marketing of farm products in the East along the single commodity lines followed in the West and the South, because of eastern diversification in production. Charles S. Wilson, member of the Board, explained this recently:

"Some of us who have made preliminary studies of the problem (in the East) believe the situation may be met by encouraging the development of local cooperative associations equipped with facilities for assembling, grading, packing, storing and loading various kinds of farm products grown in this region," he said.

"In the development of cooperative associations within the area, it may be necessary for growers in a single community to provide buildings and equipment to handle many farm commodities rather than to build a separate local cooperative for each of their marketable products."

"These community locals, receiving many different agricultural products, could then be linked up with national cooperative sales agencies for individual commodities, wherever these agencies are established for the marketing of any of the products handled by the community locals."

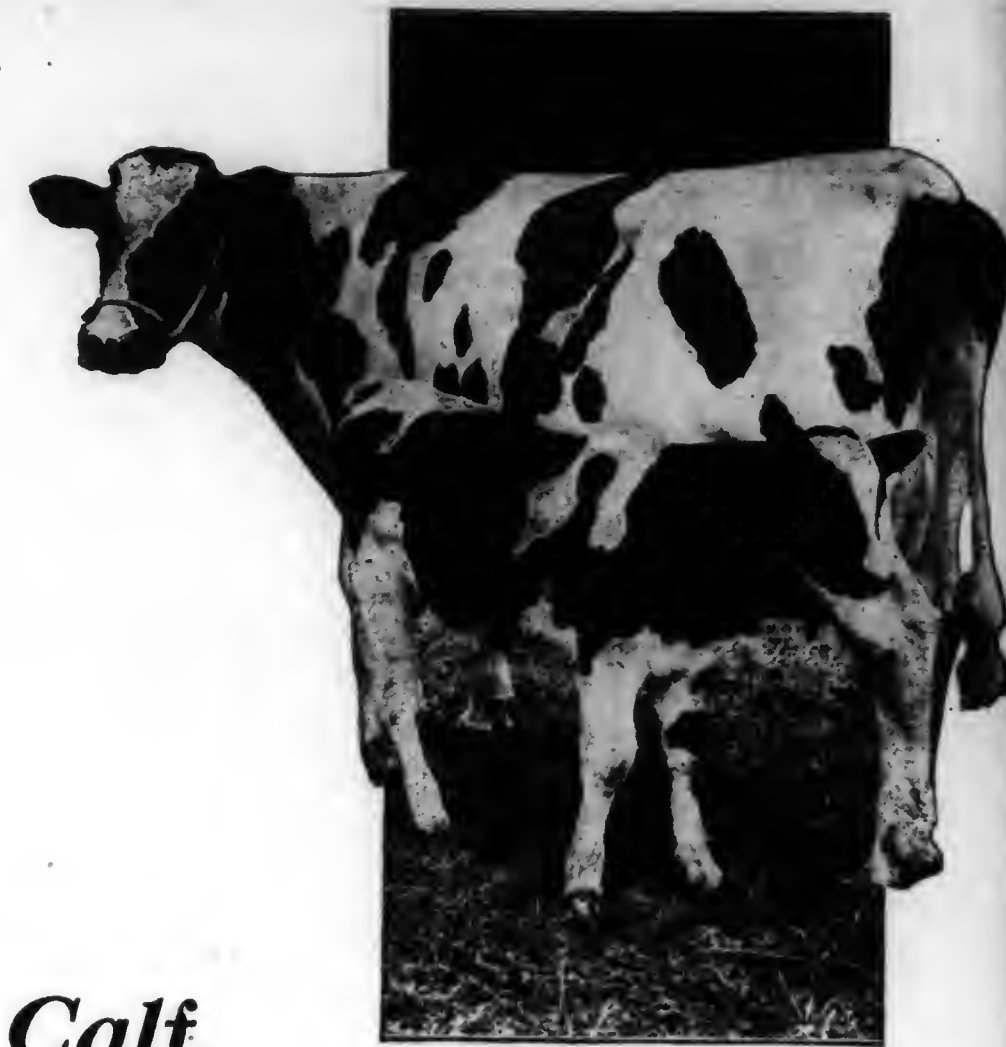
A Job Ahead

This suggests something of the job ahead of the Board here in the East and explains why nothing, probably, can be done to aid farmers in disposing of last year's wheat crop. But this does not help the farmer who is facing a loss on his stored wheat.

At the recent annual meeting of the Eastern States Farmers Exchange, in Springfield, Mass., Quentin Reynolds, general manager of that cooperative, voiced a growing feeling among Eastern farmers.

"Farm relief so far as Congress is concerned," he said, "has grown to mean getting more for southern and western farmers out of eastern markets. Politically, the East seems to be regarded as a market for the products of western and southern farmers. The stabilizing groups already organized are buying wheat and cotton so as to get the surplus out of the way to force the domestic consumers—regardless of the fact that many of them are farmers—to pay more. The farmers who are producing grain and cotton are being urged to diversify, although it is obvious that almost all of the crops substituted will compete in eastern markets already well supplied, and that we must meet this new competition or allow still more of our land to revert to deer pastures."

R. B. T.



Raise the Calf, but Sell the Mother's Milk

RAISE YOUR BEST CALVES: that is the right way to build up your herd. But using whole milk makes a calf too expensive, so it is necessary to use a calf meal which takes the place of whole milk.

When a calf is a few days old it can be shifted gradually from its milk diet without loss of growth or health, provided you substitute calf meal gruel made from Amco Calf Meal, with skim milk. By making this shift you can sell the whole milk of the cow and save from \$20 to \$30 within six months.

Amco Calf Meal replaces a calf's natural food by other ingredients which produce the same rapid,

healthy growth, and do it more economically. This Calf Meal contains the best growth promoting materials, in the correct balance to insure profitable and rapid development.

Amco Calf Meal is palatable and highly digestible; the materials are freshly mixed when you get them, so there is no danger of digestive upsets or days off-feed. The calves like it, and it is easy to feed. Feeding directions are furnished with every bag. Your nearest Amco Agent will supply you.



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Seed Corn
Early Charge and Early Golden Surprise. Excellent yielders and sure to ripen. 100 bushels or more \$2.00 per bu. Also SENSATION Seed Corn. Many vital patented features. Archibald, Tenn. Control One Hand Power Turn, Puller for both Work. Easy Farming Plan. Write today. 1930
GILSON BOLENS MFG. CO.
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HAY BALERS
Built for Capacity
and turn out neat bales of hay or straw. This is a money maker. Write for description and sizes.
A. B. Farquhar Co., Limited, Box 746, York, Pa.

BOLENS GARDEN TRACTOR
Learn how the BOLENS saves time and energy in Garden Planting, Seeding, Cultivating, Spraying, Lawn Mowing and Hay Moving. Important New Tool. Attachments include: lawnmower, many vital patented features. Archibald, Tenn. Control One Hand Power Turn, Puller for both Work. Easy Farming Plan. Write today. 1930
GILSON BOLENS MFG. CO.
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Please Mention Pennsylvania Farmer When Writing to Advertisers.

This field will produce BIGGER POTATOES

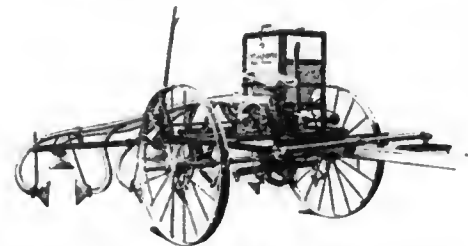


Niagara Dusts and Dusters Give Certain Protection And Insure A Bumper, Profit-paying Crop

Potato dusting is no longer an experiment! Its success on many of the country's leading potato farms (those, for example, in Armstrong County) is the final proof—here is the *certain* method of crop protection. It is a simple way to safeguard crops, too, and can be accomplished quickly, with a saving of hours of valuable time. And in addition to eliminating the necessity of water, dusting permits the use of much lighter equipment.

Eminent potato growers have abundant praise for the three factors in effective pest control: Niagara Copotex (the insecticide that kills without injuring plants), Niagara Copodust (the disease preventer that's gentle to the foliage), and Niagara Dri-Fog Dusters. . . . Niagara Dusters are built after improved designs, are light weight and give thorough, economical distribution of dust. Specially arranged nozzles insure complete coverage of foliage.

Are you interested in bigger crops of better potatoes? Write for complete information.



NIAGARA SPRAYER AND CHEMICAL CO., Inc.

205 Elizabeth Street



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Over 1000 acres in the far famed
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Headquarters For Farm Seeds

One quality only, the highest grade obtainable, every bushel northern grown.

D. B. Alfalfa Seed, 99.50 pure or better, from Montana and Northern Idaho.

D. B. Clover and Timothy average purity for years 99.75 from Michigan, Wisconsin and other Northern States.

Heavyweight 40-lb. Oats \$1.00 a bushel.

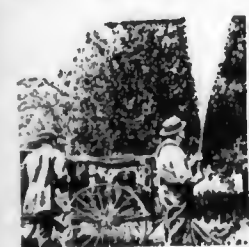
Seed Corn, 10 varieties, average germination above 90% for husking crop or the silo, several kinds as low as \$2.00 a bushel.

Seed Potatoes, 10 kinds still in stock and at prices you can afford to pay. Catalog and Complete Price List Free.

EDWARD F. DIBBLE SEEDGROWER
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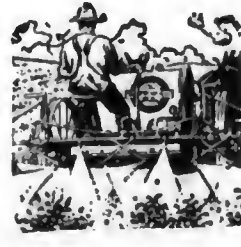
"Everything For the Farm"

» THE OSPRAYMO WAY « IS THE RIGHT WAY TO SPRAY

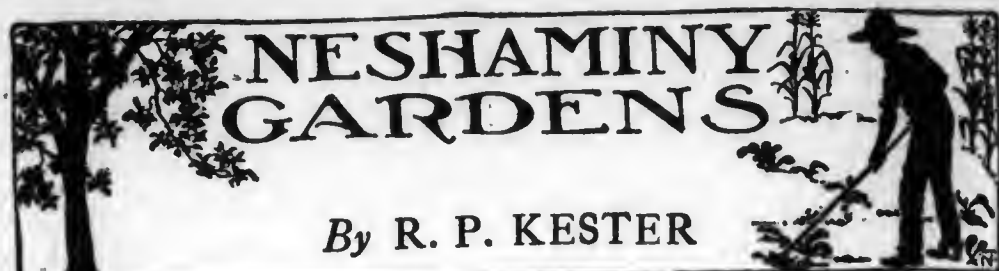


A non-clog sprayer. Revolving agitator with brushes cleans suction strainers. We make hand sprayers, orchard power rigs, traction truck crop sprayers. A sprayer for every need, high pressure guaranteed. They double your dollars. Tell us your problems. Our 47 years' experience at your service.

Insist on "OSPRAYMO" trade-mark.



FIELD FORCE PUMP CO., BOX M, ELMIRA, N. Y.



By R. P. KESTER

A YOUNG man who aspires to become a writer asks me for some pointers. He says he does not want to be just an ordinary hack writer, but desires to become one such as people will want to read after regularly. In other words he wants to be able to put "punch and personality" into what he writes.

Well, I am like the old colored man who was asked if he could change a ten-dollar bill, but could not. I thank him for the compliment, but I cannot give him any sure-fire rules for becoming a successful writer, for two reasons; first, I do not know any such rules and, second, I could not get them over to him if I did.

I do know this, however, and it applies to speaking as well as to writing. To get a hearing, one must have something to say, and be able to say it in a style that people can readily understand. But if the world is convinced that a man has something to say that is worth hearing or reading, it will excuse a good bit in the matter of manner and style. In the same way, the real worth of a man or a woman is not dependent on the kind of clothes they wear. But the clothes do affect us while first impressions are being made.

I have known a good many popular speakers and writers who were popular because they were able to dress poverty-stricken ideas in such splendid words and gesture that they won considerable applause, at least for the time being. Bluster, noise, verbosity, eccentricity of style will get some attention, but the fame of the Shakespeares, Miltons, Byrons, Shelleys and Lincolns does not rest on such superficial things as studied acting or trick phrases.

However, style is something that cannot be overlooked by one who aspires to public favor. But as with courtesy and graciousness, style in writing is partly an innate quality of character, and partly the result of education and environment.

I have listened to a good many addresses, orations and sermons that consumed time and produced volume of noise, but which left nothing helpful to think about afterward. Plenty of speakers and writers have a good vocabulary, and are able to string words together to an interminable length. In other words, such people are like the colored preacher who was told by one of his deacons: "You-all talks a lot but you don't say nothin'."

The best way for a beginner to begin is by writing down, as if for publication, his thoughts on something he feels strongly about. Then read it over to see where it can be improved and shortened. Shorten the sentences, and see to it that ideas follow each other in a related order. Be generous in the use of periods, and economical in using conjunctions. Above all, don't overwork the poor adjective. It seems, judging by much of the social conversation, as if the English language were short on all words except adjectives.

One of the most common mistakes writing novices make is in stringing their sentences out too long. I received a letter the other day from a lady who wrote two full pages without a period. It was one of the longest sentences I ever saw and, while the handwriting was good, I had to read the letter through three times before I was sure of just what she wanted to say.

During the twenty years I have been engaged in newspaper work, I have been fully convinced that our educational institutions—colleges as well as grade schools—are failing to teach punctuation. Ninety-nine per-

cent of the manuscripts that come into an editorial office require some punctuation, however well written they may be otherwise. And since I have seen many which were written by teachers and professors, I probably can guess why the layman does not know how to punctuate a manuscript or letter.

But all this is probably far from the few short, simple rules for becoming a good writer which my correspondent hoped to get. All I can say that is worth while may be summed up as follows:

Begin to write. Be a merciless critic of your own writing. Once an article is written, tear it apart; do it over, pare it down, cut out superfluous words, and, finally, if it does not suit you, burn it and try again.

Friendly Talks

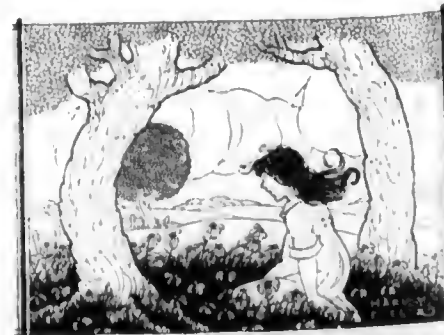
By
Edgar L.
Vincent

A YEAR with plenty of rain and sunshine, a year of good honest hard work, and you have the satisfaction of looking into the finest crib of corn or the best bin of wheat it was ever your good fortune to grow. And then what? An exhibit at the county fair, a blue ribbon and the acclaim of your neighbors as being the best farmer in the community.

And then what? You may settle down content with what you have achieved, leaving well enough alone. That is what many a man has done. That is why we have so many commonplace farmers; that is why farming runs along in such a dead level in a great many parts of the country. We forget that we never have reached the best; we lose sight of the fact that we never can reach the best. We are too much governed by the sentiment that what we have done is "good enough." But, oh the joy, the supreme satisfaction of reaching up, ever reaching up toward the things that are best!

A mother eagle bears her young bird on her back far into the blue. When high up toward the sunlight she suddenly slips away, leaving the young eagle to test its own wings. The chances are that the first time and many a time afterward, with a scared cry the young bird comes fluttering down after its mother, but the old eagle is patient. Again and again she bears the fledgling aloft and a day comes when they are away up in heaven's deepest blue, something new grips the heart of the young bird, and with a wild cry it flaps its wings and sets out for a flight such as neither mother nor fledgling ever dreamed of before.

And it may be so with you and me. Fired with a new hope, inspired by a new courage, year after year we may reach something better than anything we have attained yet, and so achieve success not hitherto deemed possible, and so do our part toward lifting the world to the best.



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CAPPER-HARMAN-SLOCUM, Inc., 7301 PENN AVENUE, PITTSBURGH, PENNSYLVANIA

Vol. 102

Pittsburgh, Pa., April 26, 1930

No. 17

On the Westward Trail

Listen my children the while we tell of a jaunt to the western coast, of mountains bold and grizzlies old and the placer miner's boast. For beyond the sears by which man mars the valley & the plain there still holds sway in proud array an untamed wild domain. Against the sky the snow caps lie, nor heed the beating sun, while grandeur gleams from woods and streams that will not be outdone. And the sunset trail of the pony mail is the ghost of boisterous days when gold and gain and pride and pain led on the gambler's ways.

HAVING delivered ourselves of the above ballyhoo let us proceed to the corn cure, whale oil and spavin liniment—good for man, beast, bird and bulldog—guaranteed to cure all ills of the flesh and rejuvenate the spirit, perk up the appetite and paint roses on pale cheeks. It will take cricks from oldish backs, lubricate stiff joints and smooth the wrinkles out of furrowed brows.

Last winter we relieved 130 farm folks from the monotony of milking cows and feeding chickens night and morning for ten days, and this summer we offer a similar sample of our farm relief remedy, which is a vacation trip to the Pacific Coast, Western Canada and way stations by way of the well-known Rocky Mountains and much territory on both sides of them.

After harvest and before the rush of fall work farmers need a vacation. We have arranged for one which we believe they will remember. It is an all-expense, personally-conducted, de-luxe journey from coast to coast—and back again—taking in famous mountain scenery and resorts, the wheat and corn belts of the Central West, national parks, gigantic lumber enterprises, the apple industry of Washington and the sunset on the Pacific—a cross-section of the United States designed to instruct,

entertain and recuperate those who go along.

In making up the itinerary of this trip we find that we are able to include a host of some of the most interesting places on this or any other continent. They include Niagara Falls as a starter. We shall not attempt to describe the Falls, but we hear that they are well spoken of. Next will be a stop in Chicago, metropolis of the Mid West, where the antics of grain gamblers and gunmen are trivial compared with the achievements of industry which change a chunk of steel into a shining tractor hitting on all cylinders and ready to turn over a township of sod or perform any of the feats credited to a giant of fairy tales; where a magnitude of commerce is ushered in by the aroma of the stockyards, the acres of cattle pens, the world-renowned packing houses which turn the product of pasture and feed lot into steaks, chops, cutlets and everything else from bologna to harness leather, or from glue to banjo strings. Then there is Boul Mich. You will enjoy Chicago.

From Chicago to the Pacific

Between Lake Michigan and the foothills of the Rockies a thousand miles of prairie and wilderness has been turned into a bread and milk factory such as no other region in any period of the world's history ever knew. There are the dairy farms of Wisconsin and Minnesota, the wheat fields of the Dakotas and the meat ranches of Montana. There are also a thousand lakes and miles of forests, "bad lands" and presumably "good" cities, a region replete with history and teeming with hope. It is worth seeing, and now is your chance.

On the westward trip the party will cross the great plains by way of St. Paul, Minneapolis and return through the grain belt of Kansas and Missouri, across the corn fields of Illinois, Indiana and Ohio, with stop-offs at strategic points to get acquainted with the most interesting parts of the country.

We shall see the sights of western cities, outstanding farms, ranches, bears in Yellowstone National Park and the apex of Pike's Peak. We shall see glaciers, gorges, geysers and the never-ending wonder of the Rockies. We shall inspect a huge lumber camp in Oregon, the famous apple country of Washington, take a boat ride on Vancouver Bay and photograph surviving members of the Indian race in war garb assembled.

We have neither wind, space nor inclination to tell more about the trip at this time, but shall give facts and figures in future issues. Very soon we shall print dates, names and places, a complete schedule which will tell just how and where the party will go. This event is scheduled to take place during the first half of August, and if you are thinking of going it would be well to arrange your plans accordingly.

There are several advantages in taking such a trip in a group. There is the advantage of congenial associates, for a Pennsylvania Farmer vacation tour is a big picnic from start to finish, with the work, worry, ants and spilled coffee left out. There is the advantage of a carefully selected route on which the most things of the greatest interest can be seen in the shortest time, for there is no waiting for trains, no fussing about baggage, no delay at connections, no an-



Blackfoot chief in formal costume. The Blackfeet are famous for the splendor of their dress. Some of them will be seen on the Pennsylvania Farmer vacation tour.

noyance about tips or lack of service. Everything is first-class.

By going in a group we get entertainment and sightseeing trips that could not be had by an individual or small party except at prohibitive cost, if at all. When you buy a carload of feed you expect to get it cheaper than if the same amount was bought in small quantities, and when you buy a vacation in carload quantity you can get the same discount. The total cost of this trip, including everything, is only about two-thirds of the cost to an individual making the journey alone, and the individual could not possibly get all the things which this trip furnishes, even if he spent more money and time at it.

No Work or Worry

The consequences of "all work and no play" are generally admitted to be disagreeable if not disastrous, and the remedy for this state of affairs is as pleasant as it is logical. The value of a vacation, of a change of scenes and activities, is recognized in all industries, and it applies to agriculture as well as to others. By going with a congenial party on a personally-conducted journey not only is the cost reduced to a minimum but the annoyances of travel, such as catching trains, buying tickets, giving tips, making hotel reservations, finding a good place to eat and arranging our schedule so that we shall be at the right place at the right time are all taken care of by the tour conductor. All the tourists need do is go along and have a good time in good company and "see America first." If you would like to take this trip, the first western tour to be conducted by Pennsylvania Farmer, kindly let us know.

Majestic cities built by man where the beaver cut his wood, while ranches rage on scrub and save where the bison chewed his cud. The buckskin shirt of the pioneer now hangs to gather dust, the packtrain crawls past beeting walls and the six-gun lies in rust. The redman rides on his raids no more, the call of the throbbing drum or the warwhoop dies beneath painted skies, which to the traveler beckons "Come."



A scene in Glacier National Park, which is one of the natural wonders to be visited on our vacation trip this summer.

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A PUZZLE

THE conferees of the House and the Senate have agreed to a tariff on hides and their products. The duty on cattle hides is ten per cent; on leather made of such hides 12.5 per cent, on side, upper, calf and kip leather 15 per cent, on boots and shoes 20 per cent, on harness, saddles, etc., 35 per cent, and so on. Can anybody figure out great benefits for farmers under such a schedule?

ANOTHER GENTLE ONE

UNDER date of April 12 we have a brief note from Mr. L. J. Stemple, Amboy, W. Va., which says: "Today one of our progressive farmers, Mr. L. Teets, was in the barn with a two-year-old bull, 1,100-pound Guernsey. The bull gored his hand and head, only missing an eye by a fraction of an inch. Mr. Teets is hurt internally; chances are 50-50 to die or get well. . . . Gentle as a lamb but treacherous as the devil!"

A REALIZATION LOAN

ANOTHER loan is to be made to finance the disastrous coffee stabilization enterprise of Brazil. This is called a realization loan, granted on condition that the enormous stocks of coffee be gradually but completely turned into cash during a stated future period. Evidently it is the wisest of all the coffee loans made thus far, for the accumulation is too great to be sold at once or within a brief period.

READY MONEY

THE United States government has \$37,750,000 which belongs to persons who can get their money any time by presenting their securities. These persons are the holders of government bonds or notes which have been called for redemption but never turned in. Most of these obligations were issued after April 1, 1917, but a few are much older. For instance, bonds maturing before 1861 are still outstanding to the amount of \$151,000.

A GLIMPSE

IN reporting the Chicago cattle market for Monday of last week the Drovers Journal says: "Total receipts at Chicago thus far this year are the smallest in more than forty years. The population of the country has

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more than doubled in that time, yet demand for beef is very limited." This is not a complete picture, merely a glimpse at a part of the picture. But it is significant of changes which are the result of many influences at work during the past forty years.

BEFORE WE LAUGH

ONE of the planks in the political platform of a Texas candidate for the United States Senate is a government cow for every poor man. Absurd, of course, but before we crack any ribs laughing at it we might pause and ask how it compares in principle with government fertilizers, government irrigation, sundry government subsidies and government price manipulation.

FROM LIFE

A CERTAIN man was better known in his community as a tinker, hunter and trapper than as a worker. He never worked regularly or long at anything. The automobile came along and he wanted one. He found that he could buy it on the installment plan but he must work regularly if he made his payments, so he got a job and stuck to it. He never missed a payment. Incidentally he learned that regular work was not so hard, in fact it was easier and better in every respect than his old way. So he kept on working and buying things on the installment plan. He bought the home which for years he had rented, made regular payments on it and owns it now. He bought a piano for his daughter and paid for that, and then several other things including a radio. All this took years to do, but he was happier in doing it than he had ever been before, and he became a real citizen of the community instead of a mere hanger-on. The installment plan has its uses as well as its abuses.

IN THE DARK

WHEN the subsidiary of the Federal Farm Board began to trade in the open market we naturally expected that its transactions would be made public, for it is a public agency financed by public funds and operating under the direction of an official board. But no reports have been published and none even promised. All concerned are in the dark as to the nature and the extent of its market operations, which uncertainty is not only detrimental to the market but unfair to all concerned therein. From the start we have advocated the publication of all information as promptly as is consistent with accuracy, and now others who see the harm done by secrecy are advocating it too. One of them says: "The government, being the people and for the benefit of the people, is not justified in acting in secret to the detriment of any of the people. Their transactions should be made public from day to day."

AN EXCHANGE'S PROTEST

LAST week the Memphis Cotton Exchange adopted resolutions reciting charges against the Federal Farm Board and its agencies and demanding an investigation by Congress. The Exchange charges the Board's agencies with dominating the futures market, "deranging values of the various options and utterly destroying the usefulness of these markets for hedging purposes, thus striking at the financial structure of the South by eliminating the only protection the banks have in financing cotton." It charges further that the alleged manipulation "has resulted in almost complete cessation of demand for actual cotton from mills and merchants for prompt as well as future delivery," has undermined the confidence of mills and foreign buyers in the stability of our market-

ing system, has seriously interfered with distribution and has "reduced the basic value of all spot cotton."

Whatever Congress may do with these and similar charges now, it is evident that the so-called stabilization activities of the Federal Farm Board will result in derangements that will compel attention sometime. And then the reader whose memory is good will remember that we have always asserted that markets could not be stabilized by adding uncertainties to them. That is what the stabilization plan does and must do, no matter how benevolent its purpose or how conscientious its administration—and there is no question about either.

"UPSTANDING CITIZENS"

THERE are two things in the annual report of the Farm Loan Board which deserve some publicity. One of them is that the reorganization of the farm loan system "will tend to assure the strength and the stability of the system in the future." The report says: "Taking all factors into consideration it would seem that faith in the country, faith in the fundamental soundness of the farm loan system and faith in the farmers of the nation would justify confidence in the future growth and progress of the system."

The other thing is an expression which signifies much when we remember that it comes from a body which carries more loans on farm property than any other single agency. After reviewing the difficulties that have confronted and still confront agriculture the Board says: "On the other hand constant and sweeping declarations of pessimism and despair during the past several years have tended to convey the impression that all farmers are insolvent, which is far from the truth. Such unqualified statements create the wrong psychology and are bound to be harmful to the credit of farmers. The great body of farmers of this country are up-standing citizens who meet their obligations as is demonstrated by the experience of the banks of this system."

TRAMP COWS

IN 1929 Wisconsin cow-testing associations reported 40,623 cows with an average production of 7,570 pounds of milk and 192 pounds of fat worth \$173 at a feed cost of \$118. The members of these associations are progressive farmers in a territory famous for good cows, but of their 40,623 cows 2,236 ate more than they produced. Commenting on these records, Mr. H. C. Larson, secretary of the Wisconsin Butter Makers' Association, shows that if a like percentage of "tramp cows" exists throughout the country they would produce 190,000,000 pounds of butter a year at an actual loss to their owners while creating a surplus detrimental to all dairymen. The tramp cow swindles not only her keeper but every other dairyman.

NOMINATE THEM

AS the names of the new Master Farmers are announced each winter it is easy to think of other individuals who should have been considered for the Award. But when the next annual call for nominations is made there is a tendency to leave it to the other fellow to send in the names. Consequently some very worthy farmers never have been nominated. We trust you will use the nomination blank on Page 8 of this issue to name any one you think belongs in the ranks of the Master Farmers. The judges will not overlook what it indicates about his community standing if the man you nominate is also named by several others.

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(605) 7

New Jersey Farm Comment

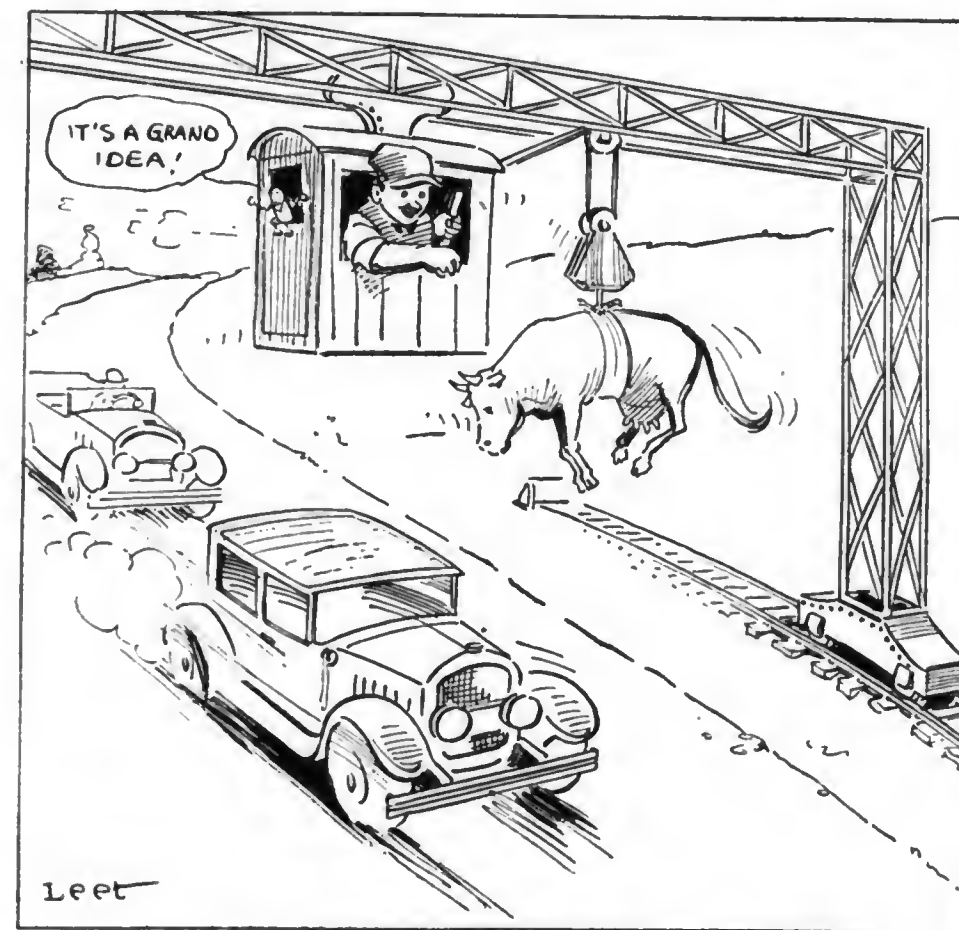
By G. W. HARRIS

Independent truckers claim that they came to the rescue of the public when the railroads fell down on service a few years ago and that they are entitled to support in a fight against encroachment upon their field of operation.

A hearing before the Public Service Commission concerning the application for franchise for this network of truck lines will be held on May 20.

This action has at least brought the independent truckers together and may pave the way for organization for the benefit of all interests.

WHEN I visited Barton Brothers' farm in Camden county last Tuesday I found them bunching truckloads of fine rhubarb ready to send to the Philadelphia market. They had started to pull their 11-acre field of rhubarb that week and accounted for its earliness and size as a result of their method of hilling the rows and fertilization.



Farmer Brown gets his cows safely across the road.

Last fall when they last worked the field the north sides of the rows were hilled higher than the south side. This gave each row a southern slope so that more heat from the sun would be retained early in the spring when it was most needed to force growth of the plants. It was just the old idea which is commonly used in the erection of sash frames practically applied out in the field.

Fertilization played an important part in the early growth. This spring before the plants appeared above the ground 200 pounds per acre of nitrate was applied to the field and two weeks later 200 pounds more were applied. Each acre of rhubarb received in all 400 pounds of nitrate, 200 pounds of potash and 400 pounds of phosphate.

TWO Hunterdon county calf club members made the state honor roll last month with their club animals. The four-year-old Holstein owned by Kenneth Smith of Flemington produced 1,378 pounds of milk and 48.2 pounds of fat during March to make the honor roll for the sixth consecutive month.

Eleanor Tottem of Ringoes was the other club member to get her name on the roll. Her five-year-old Holstein produced 1,469 pounds of milk and 41.1 pounds of fat.

DR. W. J. SPILLMAN, senior economist of the United States Department of Agriculture, blames the stock market crash of last fall for the low prices of dairy products. The unemployment which came about last fall reduced the consumer demand for dairy products and resulted in a considerable surplus, especially of butter and this operation immediately forced prices down to ruinous levels, he told members of the Hunterdon County Holstein Association when they met at Flemington last Thursday evening.

FRUIT and vegetable growers in New Jersey, members of the New Jersey State Horticultural Society, will again meet in Atlantic City this coming December, according to the announcement of A. J. Farley, secretary of the association.

For several years past, members of the Society have held their annual meetings at Atlantic City, but last year the meeting place was changed to Asbury Park. The exact dates of the meeting have not yet been set, but it will be during the week the New Jersey State Grange holds its annual convention.

THE New Jersey College of Agriculture is gradually establishing a museum of early farm machines. The latest gift received by the college is an old Smalley cultivator which was commonly used in Central Jersey years ago. It is the gift of Ira Stern of Middlebush.

John Smalley of Bound Brook patented the cultivator which bears his name in March, 1859. It is one of the first of the two-horse riding cultivators, and its mechanism enabled the driver to raise and lower the cultivator teeth without dismounting. The inventor was the grandfather of George O. Smalley of Bound Brook, a graduate of Rutgers in the class of 1906, and now a member of the State Board of Regents.

A Wage Problem Solved

THE Gloucester County, New Jersey, Board of Agriculture, has found a most satisfactory method of solving the vexing problem of reaching a uniform wage scale for the harvesting of many vegetable crops that are grown in this section. Instead of letting each farmer reach an arbitrary price per package for harvesting, the local county board has had a committee of farmers draw up rules and regulations governing the prices that are to be paid for that season. No hard and fast rates are established, but a tentative range of prices is set up to guide the two thousand growers who employ harvest hands during the season.

This committee recommends a range of rates on asparagus cutting and bunching, another rate for picking tomatoes for table stock and for the canning factories; another rate for peas, beans, white potatoes and strawberries. If a group wants rates established on other crops the committee also takes them into consideration and informs the growers of their opinion.

By adopting such a procedure, they have enabled the growers to get their crops harvested cheaper, as it prevents pickers from working one grower against another in forcing the price upward. It has overcome a practice of forcing an entire community to pay a very high price because some grower with a light crop has had to pay a high price to get the light crop gathered. It frequently happened that the grower with the light crop really establishes the wages for the section.

To meet this situation the executive committee of the county board of agriculture has taken up the entire labor and crop situation and have laid down a fair wage scale for the harvesting of crops, which take into consideration all sizes of yields that are grown. They also take into consideration the possible labor supply that may be available at harvest time.

On harvesting asparagus, they set up a range of 45 to 50 cents per dozen bunches, for cutting and bunching the crop. Where the grower does his own bunching, they contend that 30 to 35 cents per crate is a fair wage to pay.

Tomatoes are handled in the same way. The committee decides that four to six cents per $\frac{1}{2}$ basket is a fair price for this kind of work regardless of whether the tomatoes are for the canning factory or for table stock.

A price of 15 to 25 cents for picking peas is also established with a provision that 20 cents should be an average price for most fields.

On beans, a rate of 15 to 20 cents per $\frac{1}{2}$ basket is advised, while three cents is considered about right for picking up white potatoes. Strawberries are to be picked for 72 to 80 cents per crate.

In announcing these rates the labor committee makes no effort to establish a tight and inflexible rate, but offers them as suggestions for the growers to follow.

This year, they have also recommended a wage of \$40 to \$50 per month with board for month hands and \$70 to \$75 without board. For day hands they have recommended \$3 to \$3.25 without board and \$2.60 to \$2.75 with board. A. K.

Do You Know a Master Farmer?

THIS is the fourth annual call for Master Farmer nominations. Now that our readers know more about the aims and scope of the Master Farmer movement, and we have had more experience in conducting the work, we hope this year's project may be even more successful than heretofore. There will be some minor changes in the rules and methods of procedure. But the fundamentals remain the same.

We trust that this year's selections will bring honor to farmers who are deserving of honor for what they are and for what they have accomplished. But further, we hope the Master Farmers of 1930, like their predecessors, will bring inspiration to all other farmers and will stimulate the growing respect of the public at large for the profession of agriculture.

The success of the Master Farmer work depends largely on the response to this call for nominations. No one can know a man's true fitness for this honor as well as his friends and neighbors. For that reason we depend entirely on the public for nominations. No farmer is considered for the Master Farmer Award until some one sends in his name. So, if you know a farmer whose career is an inspiration to you, give us his name. The Nomination Blank below is for your convenience.

For the benefit of new readers we may explain that the Master Farmer project is sponsored by Pennsylvania Farmer as part of a nation-wide movement whose object is "to dignify agriculture by recognizing and dramatizing its successes; to encourage farmers to take pride in their calling; to inspire farm boys and girls by showing them that outstanding success is possible in agriculture as in other occupations—not only success that is measured in money, but what is more important, the success that comes from an upright and useful life in family and community."

Master Farmers may be specialists, or their operations may be widely diversified. They may hire a hundred hands, or they may do all their own work. They may own their farms or they may be tenants. The only essentials are that they be successful and progressive as farmers, and that they measure up to the high standard of rural citizenship set forth in the Master Farmer Score Card.

The Essential Facts

The Master Farmer Award consists of a beautiful gold medal which is presented to the men elected for the honor at some important agricultural meeting in their state or section. In the past the medals for Pennsylvania, Delaware and Maryland have been presented at a large banquet given by Pennsylvania Farmer in honor of the Master Farmers and their wives in the Ballroom of the Penn-Harris Hotel at Harrisburg during the annual State Farm Products Show. Last year the New Jersey awards were made during the State Farm Show at Trenton and the West Virginia Awards during Farm Week at Morgantown. The new Master Farmers of 1930 will be honored in a similar way.

To nominate a farmer for one of the Master

Farmer Awards it is necessary only to send his name to the Master Farmer Editor, using a letter or one of the Nomination Blanks.

Any one not a full time member of the Pennsylvania Farmer Staff may make nominations. Any farmer living in the following states may be nominated: Pennsylvania, New Jersey, West Virginia, Maryland, Delaware.

Candidates of former years must be nominated again to be considered this year.

No predetermined number of Master Farmers will be chosen from each state, but it is anticipated that about the same number of awards will be given as in previous years.

The names of Master Farmer candidates and of the people who nominate them are not made public in any way.

Likewise, no confidential information received about candidates or from them is revealed to any one without permission.

Nominations should be sent as soon as possible to the Master Farmer Editor, Pennsylvania Farmer, 7301 Penn Avenue, Pittsburgh, Penn'a.

How the Master Farmers Are Chosen

All farmers whose names are sent in as Master Farmer candidates will receive an exhaustive questionnaire. It covers every phase of their work, and is to be filled out and returned to the Master Farmer Editor.

The questionnaires will be analyzed and compared carefully and candidates who clearly cannot qualify will be eliminated. All those remaining, including any about whom there is any doubt, will be visited by one or more members of the Pennsylvania Farmer editorial staff who will collect additional information for the Boards of Judges. After they have assembled all the essential facts and visited as many of the leading candidates as possible the judges will choose the men to be honored as the Master Farmers of 1930.

The personnel of the Boards of Judges to make the final selection of Master Farmers in the various states will be announced later.

The men who have been chosen Master Farmers under the supervision of Pennsylvania Farmer follow:

Pennsylvania

1927.—Robert F. Brinton, Chester county; J. Clayton Brubaker, Lancaster county; James E. Eastman, Bradford county; Fred E. Hess, Luzerne county; John Schroepe, Schuylkill county; H. H. Snively, Lancaster county; Eugene Stapler, Bucks county; Frederick Taylor, Lawrence county; J. R. Ziesenheim, Erie county.

1928.—Ray F. Brown, Huntingdon county; E. S. Ferry, Bedford county; Edison M. Hay, Somerset county; Amandus Larson, Elk county; S. S. Lehman, Erie county; William G. Mendenhall, Chester county; Harrison S. Nolt, Lancaster county; Clarence H. Smith, Bucks county; C. B. Snyder, Lancaster county; F. P. Willits and Son, Delaware county.

1929.—George M. Anthony, Berks county; C. R. Baermeister, Somerset county; Henry F. Garber, Lancaster county; Guy L. Hayman, Chester county; Harvey C. Kreitz, Crawford county; Guy A. Leander, York county; Andrew T. and John C. McDowell, Mercer county; Charles F. Preston, Lancaster county; Norman E. Rishel, York county; Samuel L. Smedley, Jr., Delaware county.

New Jersey

1927.—Jacob L. Pittenger (Deceased), Monmouth county; Charles B. Probasco, Mercer county.

1928.—William J. Clayton, Monmouth county; Willard B. Kille, Gloucester county; Clifford E. Snyder, Hunterdon county; Wallace W. Titsworth, Sussex county.

MASTER FARMER SCORE CARD

All of the subjects listed below are considered in judging candidates for the Master Farmer Awards. Full allowance for differences of soil, climate and type of farming are made by the judges.

I. Operation of Farm—

1. Maintenance of soil fertility
2. Crop rotation
3. Seed used
4. Quality, feeding and care of livestock
5. Quality, variety and care of fruit trees and truck crops
6. Efficient use of man and horse labor
7. Adequate tools, machinery and equipment well housed and repaired
8. Convenience of farm arrangement
9. Products of farm, yield and quality

II. Business Methods and Ability—

1. Relation of income to expenses
2. Accounting methods
3. Business reputation
4. Marketing methods

III. General Farm Appearance and Upkeep

1. Repair and upkeep of buildings
2. Appearance of yards
3. Condition of fields
4. Condition of fences and ditches

IV. Home Life—

1. Convenient house
2. Labor-saving equipment in home
3. Character as father and husband
4. Education and training of children

V. Citizenship—

1. Neighborliness
2. Interest in schools and churches
3. Interest in other community enterprises
4. Interest in local and national government

1929.—James C. Ewart, Middlesex county, Charles Fitting, Atlantic county; Franklin G. Rue, Monmouth county; Alfred F. Sloan, Salem county.

Delaware and Maryland

1927.—Frank C. Bancroft, Kent county, Del. 1928.—L. Otis Corkran, Dorchester county, Md.; O. A. Newton and Son, Sussex county, Del.

1929.—Ray C. Norman, Harford county, Md.; John D. Reynolds, New Castle county, Del.

West Virginia

E. S. Humphrey, Wood county; Charles C. Lewis, Mason county; John D. McReynolds, Harrison county.

Master Farmer Awards were given in West Virginia for the first time in 1929. In New Jersey the Master Farmer work has been supervised jointly by the American Agriculturist and the Pennsylvania Farmer after the first year.

Value of a Good Sod

CORN is an American product that the farmer who is growing livestock cannot well do without, and it is a costly mistake to the fertility of the land to plow land for corn if you have not a heavy sod or cover crop to plow down to furnish organic matter which becomes food for the following crops. It would be better for the producing power of the land to defer the corn crop for a year, grow a crop of soy beans, harvest the beans for hay, disk the ground and seed to vetch, rye and crimson clover, to plow down the following spring.

Another practice on many farms that helps to reduce the producing power of the land is that of leaving the corn land of the past year, without a cover crop to protect the land from washing during the winter, with the thought of growing corn or oats the following year.

As an example of such practice, on route number 19 in West Virginia there is a farm of about one hundred acres of which fifty per cent is tillable land, an exception to the majority of West Virginia farms. In the spring of 1929 the owner plowed for corn a piece of rolling land that had a southwestern exposure; the sod on the land was meager, but the broom sedge was fairly rank, to which he applied the match before plowing; the land was planted to corn and potatoes, the harvest was meager.

No cover crop was seeded, the rains of the past winter have made gutters three to four inches deep all over the field, and yesterday I saw the plow at work preparing land for future planting.

I do not think the agricultural agent could find in the county a better place to demonstrate what can be done toward improving the producing power of land that is receiving such treatment, and the worst is that if something is not done the ravages will go on indefinitely.

Harrison county, W. Va. John W. McReynolds.

Milly Woodbridge's Trek to the Pacific

The Pioneers of the Peace River Valley

By C. A. Stephens

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SYNOPSIS

Two New England families, who have gone to the Peace River country in Canada to make homes, find themselves in unfortunate circumstances when the railroad, on which they had based their hopes, is not built near where they have settled. One of the families, the Mastermans, moves away, but the other, the Woodbridges, remains in the vain hope that something will happen to create business for the sawmill they have built. The son and daughter advise following the Mastermans' example and go back to civilization while they still have enough money to make the journey, but the father refuses to leave his mill.

taking time to fish and cook. It was a risky venture. Of this she was well aware, but what else could they do? There was, in fact, no alternative. They had no means for traveling otherwise; nor could they pass another winter there at their mill without extreme hardship. "Something told me we must go," Milly afterwards said; "that we must trust to fortune to find our way through to Prince Rupert."

"We will pack our cooking kit and other belongings on old Peregrination's back," she told her father and Winthrop, "and lead our Jersey behind him, so as to have milk and cream on the way. I know there must be open, grassy places where they could feed, if we did not hurry them."

In short, Milly tried to think everything out in advance, to be prepared for contingencies. All her life she had been a pioneer girl and knew many of the shifts and expedients to which settlers and campers in new localities have to make resort in adverse circumstances. The most depressing feature of their preparations was their father's frame of mind. The poor man had quite lost courage for this or any other undertaking, and stood about repining, indulging in the most gloomy predictions as to what dreadful fate would befall them on the way. Not a little strength of mind and purpose on



The Cheerful Plowman

BEAUTY COLUMN

NOW, once again I rise to preach, I rise to exhort and to teach the gospel truth of paint. I rise to urge both friend and foe to keep the surface covered so the heart can know no taint.

I see a barn, its humping back is rent with fissure, seams and cracks, its doors are warped and bent; its roof is sagged, and troughed and gray, its window sills are in decay, its joists not worth a cent. Now I recall when that old shack that now has canyons in its back stood forth in all its pride, stood forth a royal type of thing, fit for the ponies of the king and princes' cows beside. Say, I recall when that facade was whole, and sound, and newly made and painted red as socks; it was a pleasure to the eye of every sinner passing by; it was a handsome box.

I thought the thing would stand sublime until the end of measured time, a home for fatted beast, I thought that it would last as long as Stephen Foster's sweetest song, nine hundred moons, at least. What's wrong? I'd like to ask you that. Why has it opened for the bat, why is it now a wreck, why are its eave-boards sagging so, the sport of swallow, wren and crow, what force has bruised its neck?

Why, water, chiefly! Can't you see how moisture, droplets small and wee, one at a time at first, have crept into the pine and fir without a fuss, without a stir, and carried germs immersed? Yes, water did it, that is right. It caused the growth of parasite, bacteria and such, it boosted culture of the germ that made the lumber so infirm. Germs spread to beat the Dutch.

A coat of paint, all water-proof, spread over wall, and sill and roof, with oils and other stuff, would easily have held at bay those carriers of quick decay, and called a halt and bluff.

When surfaces are covered thick with paint that shows no seam or nick wood cannot rot, that's plain, for save the surface and it's true you save all things beneath it too; you must keep out the rain. J. E. T.

Milly's part was needed to bear up constantly under the weight of his low spirits. It was her daily task to infuse a little of her own courage into his foreboding mind—a well-nigh hopeless task.

There were many things to do and much to prepare, but at length all was ready—all that their limited means permitted—not, however, until as late as the third week in June, the eighteenth, I believe. On that morning they bade adieu to what had been their home on Woodbridge Creek for four years. The mill they left as it stood. It had been found quite impossible to sell either that or the lumber. It was the last of the ill-advised enterprises of Freeman Woodbridge's life—his last mill. Some presentiment may have warned the poor fellow that this was the last of his earthly migrations. That may have been the cause of his depression.

Had they known what was before them, it is doubtful whether even Milly would have had the courage to start.

But start they did on what, under the circumstances, was one of the most remarkable journeys ever undertaken. One can imagine that quaint little cavalcade setting off tearfully, by the foot-trail along the north bank of the Peace: Winthrop going ahead, gun over shoulder, Milly leading well-laden Old Peregrinations by his halter, with Jersey Brighteyes following on behind, and Freeman Woodbridge bringing up the rear with a stick to keep her from straying aside.

Blind Barty they left behind, asleep in his den on the other side of the creek. It would have been kinder, perhaps, to have put an end to his helpless life; yet neither Winthrop nor Milly could bear the thought of shooting him. Blindness appeared to have quite robbed Barty of his natural ursine ferocity. Though an inveterate beggar for food, he had become a singularly gentle creature. Once for a moment he had made a transient effort to attack Brighteyes, but a sharp touch of her horn had convinced him of the futility of trying to be a bear again. What his fate would be, left there alone, they did not like to reflect on; but to fetch him with them appeared wholly impossible.

During all her preparations it had been a secret happy thought on Milly's part to surprise the Mastermans—call on them at their new home at Prince Rupert, quite unannounced.

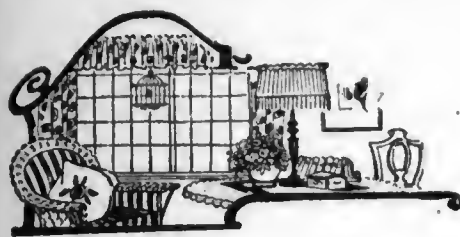
Almost at the last moment, however, she determined to send a letter, saying that they were on their way over land, through the mountains, to join them. This letter was left at Hudson's Hope, several days after they started, to go by mail via Edmonton and Vancouver. By mischance the mislaid letter went to Montreal and London, before being returned to America. When at last, late in autumn, it reached Prince Rupert, the Mastermans had gone from there to Queen Charlotte's Islands, to embark in an ambitious enterprise of whaling in the North Pacific. In consequence Quinby Masterman did not learn of Milly's perilous undertaking until the following March. Made aware from the date of her much-traveled letter that the Woodbridges had left home to cross the great and then little explored wilderness, nearly ten months previously, he was filled with direst forebodings as to what had befallen them. Dropping all other business for the time, he organized a search expedition, with results that will be recorded hereafter.

MILLY'S plans had been carefully laid; and truth to say they were good ones, so far as any possible foresight on her part could reach. Old Peregrinations was to carry their outfit, Brighteyes was to follow after, with the elder Woodbridge guarding the rear; while Winthrop, going ahead with his gun, acted as escort to protect the little party from bears, wolves or other enemies, and also to shoot such game as might be sighted by the way.

They were to travel but five hours each day, in order to have plenty of time for camping, fishing and cooking, also to give the horse and heifer time to graze. Milly thought they might cover two miles an hour and advance ten miles daily. At that rate she reckoned that the journey might be made in a hundred days. Allowing twenty days for wet weather and other delays, she had good hopes of reaching Prince Rupert by mid-October.

A truly brave plan and one we describe as wholly Milly's, for, though her father and Winthrop had a great deal to say, it was Milly's counsels that they almost invariably followed. It was Milly, too, who led the horse and watched over the precious load he bore.

(To be continued.)



The Farm Home



Precautions Against Moths

THERE are two very important precautions to be observed if you wish to protect your woolen and fur garments from moth damage over the summer months. First: Before it is put away the clothing must be thoroughly brushed, beaten, cleaned, and, if possible, sunned. Having it dry-cleaned immediately before storage is a help, but the articles must not be left exposed to moths that may be flying about the house, after they come home from the dry cleaner. They must be put away at once. If the garments do not need dry cleaning they should be gone over vigorously with a whisk broom or stiff clothes brush to dislodge any chance larvae or moth eggs already on them.

Second: The container in which they are stored should be made absolutely tight so no moths can get in later to lay their eggs on the clothing. If it is a trunk or chest, the edges must come together snugly, with no spaces; if a cardboard box, it should be covered with several thicknesses of strong unbroken wrapping paper. The ends should be carefully turned in and tied, or, better still, all laps and crevices should be sealed with gummed paper. If a closet is used, even a cedar-lined closet, the edges of the door must fit tight together or be sealed with gummed paper strips.

It is an additional precaution to put naphthalene flakes or paradichlorobenzene crystals in the containers with the clothing, but the main point is to make the container tight. The same care in preparing clothing for storage must always be used. A tight container, however, is of no value unless the clothing is entirely free of moths or unless naphthalene or paradichlorobenzene is used.

Settle the Moth Trouble

The girls in the illustration, which was taken by the Bureau of Entomology, U. S. Department of Agriculture, are combing the fur and brushing winter coats preparatory to storing them over the summer. Woolen and fur-trimmed garments, blankets and other articles that remain in use as warm weather comes on should be cleaned, beaten and sunned once or twice a month to prevent moth attack. As a rule, moths do not trouble articles in constant use.

There are various ways of fumigating rooms or closets that have become infested. They are described in a farmers' bulletin on clothes moths. Cold storage is another method of caring for valuable fur and fur-trimmed garments, recommended in this bulletin.

Ask for Bulletin No. 1353 to settle the moth troubles. The same request might as well bring you help in fighting other household pests.

Farmers' Bulletin No. 740, Control of House Ants; Farmers' Bulletin No. 1408, How to Suppress the House Fly; Farmers' Bulletin No. 734, Flytraps and their Operation. All are free from U. S. Department of Agriculture, Washington, D. C., or from your Senator.

Something to Do

THE first cry of the waking child-mind is: "What can I do?" No life is ever long enough nor complete enough to fully satisfy this demand of the normal human mind for something to do and more and more we want something to do that counts.

With that insistent inner urge driving them on, men have dared the worst that earth can offer as well as the best. No mountain is too high; no mine is too deep; no climate too hot nor too cold to check this eager spirit. Most of us can understand, something of the satisfying joy that obedience to this inner call brings. But instead of welcoming the creative quality of the groping instinct so often heard in the childish phrase: "I'll do it myself," we too often condemn it and turn a natural and help-



Brush and clean garments well before storing them

ful instinct into a mere, stubborn resistance to opposition.

Some good day we shall learn to use these groping instincts for life's best and cooperate with nature in the growth of body, mind and spirit just as we do in seed and plant and tree. From small beginnings the active mind reaches out to ever larger undertakings and finds growth and health of body and mind in the process.

Happy the boy and girl who owns a few tools, a work bench and a work shop. Work with the hands enlarges brain growth in youth and sustains health of brain in later life. A retired farmer added to his years as well as to his joy in life by alternating an hour in his garden with an hour of rest on his cot under the shade of a tree.

An elderly invalid kept a light camp stool while she worked among her flowers, marking the choicest specimens when at their best, thus keeping a dependable supply of seeds and bulbs for her customers. A shut-in keeps an age-weight-height record for a number of children whose busy mothers find it hard to keep health habits linked with the monthly record of the scales.

After all, there is work enough waiting to be done by alert minds and willing hands everywhere. Hepsy Neff.

Pink cheeks from a good diet, plenty of sleep, sunshine and exercise in the open, do not rub off.

A comfortable height for the kitchen table is generally about eight inches below the worker's elbow.

Rugs should be neutral in color and conservative in design to create an artistic background for a room. A gaudy conspicuous rug may draw so much attention to itself that none is left for the other furnishings.



Madison, West Virginia, celebrated Child Health Day last year by staging a children's festival. Here you see the king and queen in whose honor happy groups of youngsters are playing games. The court house steps provided an excellent throne.

Child Health Day in Your Community

MAY DAY—National Child Health Day, 1930, strikes a deep and vibrant note. Each successive May Day has challenged us to think and act upon one particular thing vital to the health and well-being of childhood, from the correction of their remediable defects to the provision for every child of the right kind of recreation, in the right amount and the right place.

This year May Day addresses itself to the fathers and mothers of the United States. Upon them depends the success of all efforts to ensure a sound mind in a sound body to every child. Therefore, the National Child Health Day Committee of the State and Provincial Health Authorities of North America chose as the special keynote of 1930 "Parent Cooperation in Community Child Health and Protection."

Divisions of Child Hygiene can help enormously to make possible intelligent parent cooperation. They can prepare material that explains what the state child-health program is and how it will protect the child in his home. Schools, both directly through their contacts with the parents and indirectly through Parent-Teacher Association study groups, can still further help parents to the understanding for which they are asking.

Libraries can make a valuable contribution by getting together simple material which has been recommended by local physicians and to which fathers and mothers can refer. Magazines and newspapers can and do help, by every line which they carry on the well-being of children.

These are some of the things of which May Day, National Child Health Day, 1930, would remind us. May Day asks of us all—parents and health workers—intelligent cooperation in the nation's child health program. The President can call a White House Conference on Child Health and Protection; others can say, "Let us consecrate May Day to the children of the United States." But only parents by their cooperation can make the results of the conference helpful and practical in the life of the child, and can translate the ideal of May Day into child health, child happiness, child success. Let each one of us write to U. S. Department of Labor, Children's Bureau, Washington, D. C., and ask for bulletins on Child Health.

Watermelon Cake a Prize Winner

THIS is our favorite "birthday cake" and besides being so good it is pretty, and the "talk of the table."

Three-fourths cup butter, three eggs, three cups (sifted cake) flour, one teaspoon vanilla, raisins, two cups sugar, one cup milk, three teaspoons baking powder, one teaspoon vegetable cake color (red).

Cream sugar and butter, add well-beaten egg yolks and beat again. Add the milk and flour alternately, (baking powder sifted with flour) beating thoroughly after each addition. Add the red color and tuck in a few raisins for the melon seeds. Fold in the stiffly-beaten egg whites. Bake in moderate oven in three layer pans. When cold use this icing:

Blend one tablespoon butter, one cup confectioner's sugar, two tablespoons scalded milk, one-half teaspoon vanilla, and divide the mixture into three parts. Add a few drops of red coloring to one part and spread it between the layers. Cover the entire cake with a second part leaving it natural white color. Use green cake color with the third part and spread this over the outside, covering the whole cake. Then watch the kiddies smile!

Mrs. L. L. Swartz

Pennsylvania.

To prevent soft custard from curdling, keep the water in which it boils below the boiling point. If it curdles it may usually be made smooth by beating with egg beater.



No. 6824.—Ladies' dress. Cut in eight sizes: 36, 40, 42, 44, 46, 48, 50 and 52 inches bust measure. A 36-inch size requires 5 1/2 yards of 36-inch material. For contrasting material, 1 1/2 yard 39 inches wide will be required. Trimming band of lace requires yard. Price 15c or two for 25c.

No. 5935.—Set of short clothes. Cut in three sizes: 6 months, 1 and 2 years. A 2-year size requires 1 1/2 yards of 36-inch material for the dress, 3/4 yard for the trousers, 1 1/2 yard for the rompers, 3/4 yard for the sack and 3/4 yard for the bonnet. Price 15c or two for 25c.

No. 6822.—Ladies' dress. Cut in five sizes: 36, 38, 40 and 42 inches bust measure. A 38-inch size requires 5 1/2 yards of one material 35 inches wide, for jacket and dress. The width of the dress at the lower edge with plaits extended is 2 1/2 yards. Price 15c or two for 25c.

No. 6474.—Girls' dress. Cut in four sizes: 6, 8, 10 and 12 years. A 10-year size requires 2 1/2 yards of 39-inch material. To finish with bias binding requires 2 yards 1 1/2 inches wide. Price 15c or two for 25c.

No. 6476.—Coat ensemble for girls. Cut 5935 and dress 6476 are both cut in three sizes: 8, 10, 12 and 14 years. To make the ensemble for a 12-year size as pictured will require 3 1/2 yards of material for the coat, and 6 1/2 yards for the dress and matching 36-inch material. Two separate patterns 15c for each pattern or 30c for two.

No. 6825.—Girls' set of undergarments. Cut in six sizes: 2, 4, 6, 8 and 10 years. To make the set in a 4-year size will require 2 yards of material 35 inches wide, finish with edging requires 6 yards 3/4 inch wide. Price 15c or two for 25c.

No. 6714.—Ladies' dress. Cut in five sizes: 36, 38, 40 and 42 inches bust measure. A 36-inch size requires 4 1/2 yards 36-inch material. For the tabs of ribbon 36-inch material. The width of the dress at the lower edge with fullness extended is 2 1/2 yards. Price 15c or two for 25c.

No. 6122.—Girls' dress. Cut in four sizes:

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That's why

FELS-NAPTHA LOOSENS GREASE SO QUICKLY

IT'S the combination of unusually good soap with plenty of naphtha that melts away grease—easily, quickly. No hard rubbing necessary!

Naphtha, you know, is a marvelous dissolver of grease. And there's plenty of "brisk" naphtha (smellie!) in Fels-Naptha. Plenty of it combined with good golden soap. Working together, they give extra help that loosens the greasiest dirt and washes it away.

Use Fels-Naptha in tub or washing machine. For soaking or boiling clothes. In hot, lukewarm or even cool water. It makes things easier for you and brings you fresh, clean, sweet-smelling washes. And this same extra help is

mighty handy for household cleaning.

Your hands will like Fels-Naptha, too. It works so quickly that it gets them out of water sooner, which is a big help in keeping them nice. Get a few bars at your grocer's today.

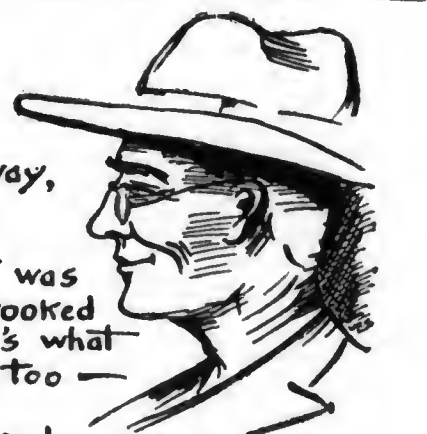
FREE—a Fels-Naptha Chipper. Many women who chip Fels-Naptha into washing machine, tub or basin find it handier than a knife. Use it and Fels-Naptha to make fresh, golden soap chips (that contain plenty of naphtha) just as you need them. Sent free and postpaid on request. Write today. Dept. 7-4-26. Fels & Company, Philadelphia, Pa.

THE GOLDEN BAR WITH THE CLEAN NAPHTHA ODOR

FELS-NAPHTHA

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THE SYTAC CO.
Division 118. St. Paul, Minn.



Potatoes Sprayed with Pyrox Yield 50 Bu. More per Acre

"MY 22 acres of potatoes sprayed with Pyrox averaged 50 bu. more per acre than where other sprays were used," writes Mr. J. D. McFaun, Manager of the Hillside Farm, Vintage, Pa., under date of Nov. 5, 1929. He says: "The quality of the potatoes is so good that I am getting \$2.00 per bu.—which means a 20c premium—at the Lancaster, Pa., market."

At \$2.00 per bu., Mr. McFaun's increased yield obtained by protecting his potatoes with Pyrox, amounted to \$100 an acre. Other growers report similar extra profits from crops sprayed with Pyrox.

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Mr. J. D. McFaun, Mgr. of Hillside Farm, Vintage, Pa.

nozzles and sprays in a fine mist. It has the best of sticking and covering properties.

Spraying with Pyrox is a profitable operation. Not only are the increased yields obtained which normally result from spraying, but an additional yield which will pay for any difference in the cost of Pyrox several times over. Pyrox is now priced lowest in 31 years. See your dealer today and get a copy of the new illustrated Pyrox Spray Guide.

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RECENT experiments by leading Experimental Laboratories have shown the new and easy method of preparing Bordeaux Mixture known as "Instant Bordeaux" to be as fully effective as the well known standard formula provided the correct method is carefully followed.
The most economical and effective form of Copper Sulphate (Blue Vitrol) for making "Instant Bordeaux" is known as "Snow" Blue Vitrol. It comes in very small crystals, about the consistency of granulated sugar. To prepare—into the mixing tank, while water is running into it, place 4 lbs. lime. Then add 4 lbs. "Snow" Blue Vitrol agitating or stirring while adding and until all is dissolved. Then add water to make 50 gallons. Do not confuse "Snow" Blue Vitrol with the powdered "Snow" which is much more economical and dissolves readily. Safeguard the efficiency of your Bordeaux by using only

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HORTICULTURE

By S. W. FLETCHER

To Start an Orchard

We have a lot of farm land that has been idle over a period of years and we now want to develop it as a fruit orchard and vineyard.
It slopes toward the west. If we send you a sample of the earth will you analyze it for us please and tell us what kind of fertilizer we need and just what to do to get started right?
Rosalie Shilka.

AN analysis of a sample of this soil would not indicate what fertilizers should be applied to it. The analysis would show the total amount of each of the essential plant foods that the soil contains, but would not reveal how much of this now is available for plant growth. The only reliable method of determining the fertilizer needs of a soil is to study the comparative growth of crops on different plots that have been fertilized with different kinds and amounts of plant food.

An orchard soil should be well drained, and not too heavy. It is desirable that the surface soil shall be open and preferably contain a considerable proportion of sand, chert or gravel. This makes it warm and easy to work. The subsoil may be clay, but should not be impervious. There should be no hardpan or tight rock within three feet, at least, of the surface and preferably deeper.

For orchard purposes, the physical condition of the soil is fully as important as the chemical composition. A good orchard soil should contain a large amount of organic matter—decayed vegetation; this increases its water-holding capacity and improves its physical condition. If your land has been idle for several years, and has accumulated a considerable growth of vegetation, it ought to be in good condition for orcharding.

The young trees will need very little fertilizer the first few years, provided the land is kept in a cultivated crop, as corn or potatoes. Half a pound of nitrate of soda per tree, or its equivalent in sulphate of ammonia, or other nitrogen carrier, may be applied the first season, soon after the growth starts, and again in July. Spread it in a ring about two feet away from the tree. This may be increased to one pound the second year.

If phosphorus is used, apply it mainly to the crops grown between the rows of trees, and especially in preparing the land for crops like red clover, sweet clover, or alfalfa that are to be turned under for soil improvement.
S. W. F.

Huckleberries

Could you send me a leaflet or information on how to grow bigger and better huckleberries? Gottlieb Kofink, Sullivan county, Pa.

If you refer to the named varieties of cultivated blueberry, write for the following publications: "Blueberry Culture," Bulletin 200, New Jersey Agricultural Experiment Station, New Brunswick, New Jersey. (Free on request.)

"Directions for Blueberry Culture," Bulletin 974, U. S. Department of Agriculture, Washington, D. C. (Thirty cents.)

"Commercial Culture of Whitesbog Blueberries," Joseph W. White, Inc., Whitesbog, New Jersey. (Free.)

The fruits of improved varieties of the cultivated blueberry are much larger than the average wild blueberry, and the plants are more productive.

Owing to the difficulty in propagating them, the plants are quite expensive, but the berries command a higher price than wild blueberries. There are now some hundreds of acres of cultivated blueberries grown commercially in the northeastern states; and there is a considerable industry in Florida. Some have made a fair start by transplanting superior wild plants to the garden.

The cultivated blueberry requires an acid soil, preferably peat or muck,

or muck overlaid with sand, and an abundance of moisture. It will not do well in the ordinary alkaline or neutral garden loam. Another important factor is the presence of a certain root fungus, which has a somewhat similar relation to the blueberry plant as the organisms that live in the nodules of clover and alfalfa.

If you refer to the wild blueberry (also called huckleberry) the "barrens" usually are burned off every three or four years, commonly in early spring. The object is to burn all the old parts of the plants, and surrounding undergrowth, so that the bushes will send up vigorous new shoots. These will bear the year following. Burning, however, is a dangerous practice, and it destroys the organic matter of the soil.

The time is approaching when blueberries will be grown, both commercially and in home gardens, as freely as blackberries are now. This will require alkaline-tolerant varieties; these will be developed by plant breeders. At present, plants of the improved varieties are so expensive, and the conditions essential to successful cultivation are so exacting that commercial blueberry culture must continue to be quite restricted. S. W. F.

Efficiency in Spraying

EVERY fruit grower should aim to spray his orchard thoroughly in the shortest possible time, and with a minimum amount of labor and material, according to A. J. Farley, N. J. extension specialist in fruit growing. This requires adequate equipment operated by men who know how to spray, and the development of a method of spraying that will insure thoroughness of application without the use of excessive amounts of material.

There is no special method of spraying which can be considered the best for all growers or for all orchards. Furthermore, spraying equipment that meets the requirements of one orchard may be inefficient in another orchard.

In some cases it may be desirable to increase the number of portable sprayers, or replace present sprayers with outfits having greater capacity. In other orchards, the installation of a stationary spray plant may solve what appears to be a very difficult problem. Still another possibility is greater use of equipment already on hand through longer hours of spraying during critical periods; improvement in refilling and spray mixing facilities; or some modification in the type of spray gun or nozzles now in use.

Every fruit grower should check up on his spraying operations from time to time from the standpoint of efficiency, bearing in mind that labor constitutes the greatest single item of cost in connection with effective spraying.

Wireworm Injury

EVERY year, especially during May and June, the thin, inch-long, hard-skinned, yellowish or reddish brown larvae called wireworms do much damage in Pennsylvania by boring into newly planted corn beet roots, cabbage roots, radishes and many other root crops. The Pennsylvania State College Laboratory at Kennett Square, Pa., is making a study of the biology and control of these pests. The farmers of Pennsylvania can be of great service in this study if they will send specimens of such injurious wireworms to the laboratory; or if they will notify the laboratory at the time when such injury is being done to their crops, so that the infested farms may be visited and the injury studied. Address all specimens, notices of injury, etc., to C. A. Thomas, Pennsylvania State College Laboratory, Kennett Square, Chester county, Pa.

Truck Crops

By GILBERT S. WATTS

Plant Lice

I am having trouble with green lice on my house plants and tomatoes. I was troubled with them last year. Michael Ewanick, Lackawanna county, Pa.

PLANT lice on tomato and other plants may be controlled by spraying with one-half pint 40 per cent nicotine sulphate and five pounds of hydrated lime to 50 gallons of water (one teaspoonful nicotine sulphate, one cupful hydrated lime and two quarts water).

In greenhouse and plant beds a very effective method is to fumigate by painting specially prepared nicotine solutions on the heating pipes or by burning nicotine papers that should smoulder rather than blaze. These materials may be secured from supply houses and will be found to give best results when used on still, humid nights. Follow closely the directions on the package.
G. S. W.

Fertilizer in the Hill

Is it possible to fertilize in the hill for tomatoes, cabbage, etc? Have been doing this for some years, using poultry manure. This year would like to use complete mixture, using superphosphate, potash and nitrate. Butler county, Pa.
C. J. Burns.

FERTILIZING cabbage and tomato plants in the hill at the time of setting was my regular practice several years ago when the fertility of my soil was lower. We used a half handful of fine ground bone or bone and tankage under each plant in addition to a broadcast application of a complete fertilizer harrowed in before planting.

However, a mixture of superphosphate, muriate of potash and nitrate of soda, or for that matter any complete fertilizer, may be used in the hill if precautions are taken to prevent excessive quantities being applied and to insure a reasonable degree of mixture with the soil. Otherwise serious "burning" may result.

In setting tomatoes four by four feet apart an ounce per plant would require about 200 pounds per acre. With cabbage half this quantity per plant would run into an acre application of several hundred pounds. As a rule very heavy applications should be broadcast and harrowed in before planting, particularly with crops that are closely spaced.
G. S. W.

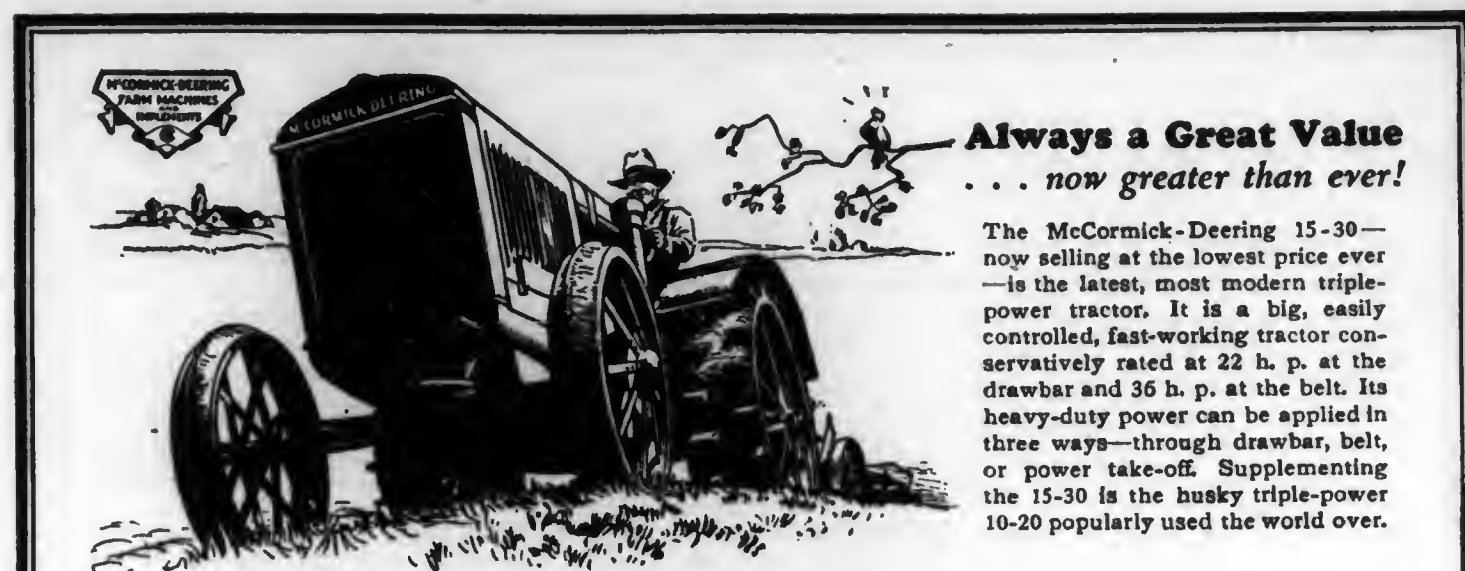
Pruning and Hot Caps

What can you tell me about tipping early tomato plants above the fourth leaf? Do you think it is likely to delay the picking? I have two sash of Earlys which have grown a little more than I like, due to warm weather and much heat in sash. They are not heavy and are not ready to tip, but it is a long way to planting time, and I heard of this tipping and thought it might hold them back a little, but I am half afraid of it.
What about hot caps for tomatoes and peppers?
Montgomery county, Pa.
J. E. Trumbauer.

The practice of tipping or pruning back young tomato plants is not favored by many commercial growers or experimenters. As a rule little is gained and most growers prefer to lay leggy plants in the furrow with only the desired portion above ground. Roots will be formed all along the buried portion of the main stem. In fact I once saw a small grower set in this way some tomato plants that were fully three feet tall. Of course the handling of these was a delicate and tedious job, but an excellent crop was produced.

Hot caps or paper protectors for early set peppers, tomatoes and other tender crops do not seem to be finding as great popularity in the East as in the West. Possibly this is partly the result of some makes of paper plant protectors collapsing or breaking down in our more humid and showery climate. As a rule a certain amount of ventilation must be provided by slitting the tops of the protectors.

G. S. W.



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Address

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else, Sir!
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could I want?"

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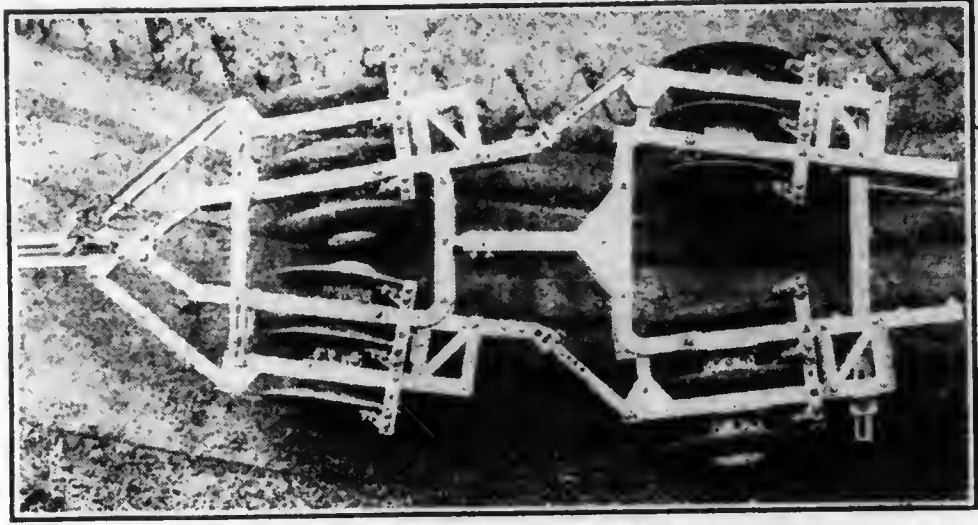
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from our garden this summer. The Great New "MARTINIQUE" strawberry will fruit this summer and fall. 100 Plants, \$3.50; 250, \$5.00; 500, \$8.50; 1,000, \$15.00.
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Boston, Mass., April 2, 1930.
The Board of Directors has declared a regular quarterly dividend of sixty (60) cents on the three A common stock of this company, payable May 15, 1930, to stockholders of record at the close of business May 1, 1930.
Checks to be mailed. Transfer books will not close.
R. G. LADD, Assistant Treasurer.

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Top view of a cover-crop disk which has 22-inch disks spaced nine inches apart.

Potato Machinery

By R. U. BLASINGAME

It appears that potato growing in Pennsylvania, among the 400-Bushel Club, has been reduced to a formula. Machinery plays an important part in this program.

Here is about the list of equipment being used by these growers:

1. Tractor—a two and three-plov size.
2. Chisel or orchard harrow, sometimes called "jostler."
3. Tractor plow.
4. Tractor cover-crop disk, 22 inches in diameter, 9-inch spacing.
5. Two or one-row planter which will plant three to three and one-half inches deep and cover shallow—either automatic or assisted feed.
6. Weeder, either horse-drawn or tractor operated.
7. Water tank located on a platform in the field above the sprayer having a three-inch valve and a fire hose for filling the sprayer rapidly.
8. Lower platform with several 50-gallon wooden barrels filled with copper sulphate solution, also barrels (can be steel oil drums, 50 gallons) filled with lime solution.
9. Power sprayer, six to eight-row boom; one horse power for each row sprayed, and a pump capacity of at least two gallons of spray per minute for each row sprayed at 250 to 300 pounds pressure.
10. Water pump and pipe line to the elevated tank in the field.
11. Cultivator, either horse-drawn or tractor.
12. Potato digger equipped with an engine, operated by the tractor power take-off or driven from the ground.

Deep Seedbed

Some potato growers disk down soy beans in the fall and follow with the chisel. The next spring they disk and chisel again at planting time, not using a plow at all.

Others plow down the soy beans in the fall, chisel and disk in the spring. Others plow both fall and spring and disk, then chisel at the time of planting.

Planting

Over half of the 400-bushel growers employ the same make of potato planter. It has two disk openers in front. The fertilizer is deposited on each side of the row and a shoe run-

ner opens the furrow into which the seed is deposited. This is followed by two disk covers which may be set to cover shallow or deep. The shallow covering seems to give best results because the potatoes come up quickly, having little soil to push through, and the heat of the sun causes rapid sprouting of the seed.

Cultivating and Weeding

Before the potatoes come up it is often the practice to run the weeder. This kills out small weeds which would become troublesome. In fact, the weeder is run every week until the potatoes are ten to twelve inches high, "then weed a few more times."

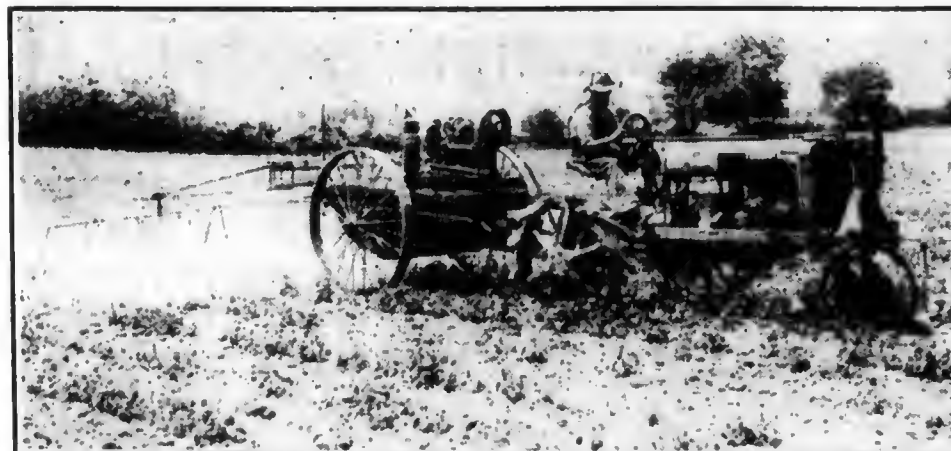
Just before or about the time the potatoes begin to appear so that the rows can be seen, cultivate as deep as possible. After this cultivate as often as necessary to loosen up the soil so that the weeder will take effect. The weeder does not kill weeds if the soil is packed down too hard, thus the cultivation. And, of course, cultivation takes out some of the large weeds which the weeder will not handle.

Spraying

It appears that the growers who are getting the big yields are employing power sprayers of about the following specifications: (a) Develop from 250 to 300 pounds pressure; (b) one horse power for each row sprayed in engine capacity (six-row sprayer should have a six h. p. engine); (c) pump to deliver about two gallons or more of spray per minute for each row sprayed; (six-row sprayer, for instance, to have a pump to deliver at least 12 gallons per minute); (d) some kind of efficient vine turner to protect the potato plants from the wheels; (e) three nozzles to each row.

Begin spraying as early as the rows can be seen and keep it up every week to ten days with Bordeaux mixture. By the way, the spraying should follow the weeding and cultivating so that the spray will not be shaken off the vines.

Mr. J. S. Wile, Montgomery county, says that he pumped the water for his 80 acres of potatoes last year, for each spraying, for about \$1 worth of electricity. He applied at least 100 gallons per acre (100x50) or 8,000 gallons for each spraying.



This farmer with his general-purpose tractor sprays eight rows of potatoes at one trip, using power take-off machine.



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The Story of Woodbine Farm

By W. D. ZINN

SPeAKING of the one-crop rotation that has been the curse of Virginia agriculture, we saw thousands of acres of second growth timber standing which doubtless were 40 to 50 years old, and the tobacco or cotton rows could yet be seen in the forests. The land had been cultivated to these crops so long as it would grow anything, and then it was turned out for nature to improve it; and it was doing it by the trees shedding their foliage year by year. A slow but sure way to restore a soil.

Slavery has been a curse to Virginia, for on account of it some men have grown up with the idea that manual labor is undignified. At one of our stops I told how, with my own hands, I had ditched my little farm. A son of a slave-holder came to me after I had given my talk, and said, "I beg your pardon, but allow me to suggest that you do not mention the fact any more that you dug those ditches with your own hands. We think that is work that belongs to the colored man."

To which I replied, "My friend, if I had not learned to do all kinds of work that is done on my farm I would not be here today." I am glad to believe that there are few men and women in Virginia who have that notion of labor today.

The Civil War devastated a great deal of Virginia, but it is getting back on its feet again. All over the state the traveler can see the earmarks of prosperity. I was sent by the commissioner to Albemarle county, Virginia, into a rural district to hold a one-day institute. No meeting of the kind had ever been held there. Arriving before the hour of the meeting I went into a store at the crossroads. I introduced myself to the merchant, telling him for what purpose I had come.

The Squire's Question

He said, "Yes, your meeting has been advertised, and you are going to have a good crowd. Let me tell you something, confidentially. A crowd of farmers was in the store a few nights ago, and they said, 'This man is coming out here to talk to us about farming, and he no doubt does his farming on the third floor of a brick building in Richmond. Let's see if we can't floor him on the first round.'"

"Then," said the merchant, "they organized, and elected Squire . . . as their spokesman." He described the man so that I might know him.

The hour of the meeting arrived, and I took up the subject of soils, and proceeded to discuss it in my usual way. I finally came to the subject of plowing, and the Squire, whom I had already picked out, held up his hand, and said, "May I ask you a question?"

"Certainly," I said, "I should have told you at the beginning to ask me any question you desire at any time."

"Did you ever plow an acre of ground in your life?" inquired the Squire.

I replied, "You take me to be a book farmer. I wish I knew more about book farming than I do, but if you will come over to Philippi, W. Va., and my neighbors do not tell you that I have done all the different farming tasks with my own hands for the last 30 years I will pay your transportation over and back, and will entertain you the best I can as long as you care to stay."

The crowd listened very attentively. After the meeting was over the Squire came to me and said, "I believe you are all right."

"No, I am not 'all right,'" said I, "but I am a farmer."

At that time there was held at Richmond what was called the State Fair. During the different fairs the commissioner, Mr. Koiner, had me to attend and take charge of the agricultural booth which the Department

(Continued on page 28.)

PENNSYLVANIA

Clarion-Forest County

John C. Bostaph Farm—No. 15432—56 acres.—Located on public road leading in a northeasterly direction ½ mile from Vowinkel, the nearest railroad station and shipping point; ½ mile to nearest school and ½ mile to nearest church. Contains 49 acres suitable for cultivation, balance in pasture. Buildings consist of main dwelling, main barn. Soil is clay, watered by spring. Farm adapted to the growing of corn, oats, wheat, potatoes, hay, etc. Sale price \$2,100. Cash \$450.

PENNSYLVANIA

Indiana County

Charles L. Dick farm—No. 20193—94 acres.—Located on public road 1½ miles to Clymer, the nearest railroad station and shipping point; 1 mile to nearest church and ½ mile to nearest school. Contains 90 acres suitable for cultivation, balance in timber. Buildings consist of main dwelling, main barn. The soil is shale, watered by spring. Farm adapted to the growing of corn, oats, wheat, hay, buckwheat, etc. Sale price \$4,000. Cash \$800.

PENNSYLVANIA

Potter County

Jacob E. Ridgway farm—No. 12736—271 acres.—Located in fair farming region, 7 miles east from Coudersport, 2 miles to Seven Bridges, nearest shipping point and railroad station, 1 mile to school and church. Contains 150 acres in cultivation, 37 acres in pasture, 50 acres in cut-over, 30 acres in timber and 4 acres in orchard. Wood dwelling, other dwellings, main barn, other barns and outbuildings. Red and gray shale soil. Watered by natural springs for domestic use. Farm adapted to growing usual crops of community. Sale price \$4,000. Cash \$800.

PENNSYLVANIA

Clearfield County

Leland J. Newell Farm—No. 3719—58 acres.—Located on new concrete road being constructed within about ¼ mile from Sabula to Penfield, ¼ mile to nearest church and ¼ mile to nearest school. Contains 54 acres suitable for cultivation and 3 acres in woodland. Buildings consist of dwelling with fair slate roof and main barn. The soil is of gravelly loam, fair fertility, watered by springs and well. Farm adapted to growing of general crops of the community. Sale price \$2,000. Cash \$400.

PENNSYLVANIA

Crawford County

William Hoffman farm—No. 8340—130 acres.—Located 2½ miles from Shadeland offices (joins this development), 2½ miles west from Springboro, the nearest depot (R.R.), 2½ miles to school and 3½ miles to churches and milk station. Contains 100 acres suitable for cultivation, 10 acres suitable for pasture and 20 acres in woodland. The buildings consist of a 9-room frame dwelling. The soil is clay and of good fertility. The farm is watered by spring and well, and adapted to growing corn, oats, buckwheat, wheat, potatoes and hay. Sale price \$3,200. Cash \$600.

These Farms ARE BARGAINS

THE balance between the cash payment shown and the sale price can be obtained by mortgage running for a period of ten years, with installments paid annually, plus 6 per cent interest.

PENNSYLVANIA

Erie County

Stephen W. Burleson farm—No. 2699—255 acres.—Located 4 miles west from Albion, the nearest town, and ¼ mile from cement road, 1 mile to nearest railroad depot and nearest school and 3 miles to nearest churches and milk station and cannery. Contains 125 acres suitable for cultivation and the balance in pasture. The buildings consist of 8 room dwelling and 2 barns. The soil is clay loam and of good fertility. The farm is watered by wells and adapted to growing hay, grain and potatoes. Sale price \$6,000. Cash \$1,000.

PENNSYLVANIA

Tioga County

Eugene Wilson farm—No. 3660—222 acres.—Located on County road leading in a westerly direction between Wellsboro and Pine Creek, nearest railroad and shipping point; nearest station is 5 miles, Post Office 9 miles; 2 miles to nearest school and 1 mile to church. Contains 222 acres suitable for cultivation and pasture. Buildings consist of dwelling house, main barn. The soil is red shale and of good fertility; watered by springs. Farm adapted to the growing of general crops, such as hay, oats, corn, wheat, potatoes and buckwheat. Sale price \$2,300. Cash \$300.

List of other farms in Maryland, Virginia and Pennsylvania sent upon request.

Write today to **FEDERAL LAND BANK** of Baltimore, Real Estate Dept. BALTIMORE, MARYLAND

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The advertisements in this publication are a record of what the manufacturers are doing for you. They will give you many new ideas and will tell you what you want to buy. And they will help you get the most for your money.

The advertisements are news. They are interesting. Form the habit of reading them carefully and regularly. It will pay you to keep informed of the daily progress of business.

For full value—buy standard products. Manufacturers stand back of advertised goods.

READ THE ADVERTISEMENTS TO RECOGNIZE PRODUCTS THAT ARE WORTHY OF YOUR CONFIDENCE

THE YOUNG PEOPLE

More Queer Pets

Built His Winter Home

ONCE upon a time I found a strange little creature and I took it home for a pet. It was not a dog or a cat or a bird. It was a mud turtle and it lived several years with us. There was a date cut on the under side of its shell—March 22, 1692.

Of course somebody cut it on him not many months ago for a joke. I called him Skeezix and he knew his name and would follow me. I had a pet cat too. Skeezix and the cat were great friends. They would eat out of the same dish and not say a word. Skeezix was fond of green food. When he would go in the garden he would eat everything green that he would happen upon whether we liked it or not.

Skeezix's chain was fastened through a hole in the back part of his shell, but he soon grew so strong that he broke away from his chain one day and left a piece of his shell still hanging to the chain.

Every year in October Skeezix went off. No one knew where he went until the spring. Then a little heap of earth would be found near a hole. Here Skeezix had spent the winter. The hole was at least two feet deep. If the winter was very cold he would go down deeper.

In the spring Skeezix would always come out of his winter home all covered with mud. He would come waddling towards the house puffing and blowing like he had asthma or mud fever. He would come straight on in the house hunting his playmate, the cat, dripping mud all the while. The family would welcome him, but I had to wash the untidy pet. Then he and the cat would be as friendly over their bread and milk as they had been the year before.

But this couldn't last for ever for one day I saw that old age, asthma, mud fever or something was about to get the best of him. He refused to eat. All kinds of good food was offered him but he wouldn't touch it. At last he was found dead in one corner of the kitchen. One thing that seemed so queer was the liking he and the cat had for one another. The cat, which was Skeezix's best friend, sat by the side of her friend and pawed his shell for hours refusing to eat, meowing piteously. No one could doubt that she loved him very tenderly.

West Virginia. Everett Craddock.

Ducky Doollittle, Nursemaid

I HAVE a pet duck. His name is Ducky Doollittle. He is black, white and brown and he wears a long yellow bill.

He was hatched under an old hen out of a duck egg. Of course, you wouldn't expect him to be hatched out of a turkey egg, or goose, or hen egg, would you?

He was the only duck in Mother Hen's family of seven children. When very young he formed a habit of running away to swim in the creek. Mother Hen would run up and down along the bank squawking and clucking as if he were already drowned, while Ducky Doollittle would paddle about as if he were doing it to tease her.

Mother Hen finally became used to it and would busy herself hunting for insects for her baby chicks near the water.

Ducky Doollittle is now four years old. Every year when Mother Hen raises a brood of chicks he can always be found near by, and I hate for them. At night he sits with some of them under his wings and sits contentedly sheltering them.

One thing seems to be a mystery. He can't coax the baby chicks into the water. Orlena Lorraine Flinn, West Virginia.

"Jenny Wren"

ONE bright morning in June, as I lay awake in my bed, I heard a bird singing. It sounded very near to me. I looked out of the window and there on the window ledge I saw a little wren. It seemed to be telling me something for it was looking right at me.

I lay still and watched it but it soon flew away. It returned shortly afterwards with some twigs. This sure did surprise me, for I thought it was coming into my room with them. But it suddenly disappeared behind my shutter. I dressed at once and then looked behind the shutter. There I saw quite a few twigs. Then I knew I was to have company.

This wren did not seem to be afraid of me at all. It seemed strange how we became friends. Every morning and also during the day the wren sat on my window ledge and sang. I soon began to put bread crumbs on the sill and they were soon found by the wren. I used to stand at the window and watch it build its nest but it did not fear me.

It soon finished its nest and before very long I had some more company. I picked cherries and also berries and put them out for it. The wren was always sure to find them. At last it became so friendly with me that it took cherries out of my hand.

The wren's family soon left the nest but the mother wren often returned to my window ledge. At last my strange pet left me but I have hopes that it will return again this spring.

Pennsylvania. Robert Reihman.

Quack! Quack!

I AM a little girl ten years old. I have two pet ducks. I wish you

could see them. They will eat from my hands. When they were small I put them in a box every night. Last summer they were afraid when it thundered. They wanted to come in the house and hide under the bed. When I put on my shoes they would try to take them off. I call them Alex and Patty. They are pretty pets, and I love to feed them.

West Virginia. Gertrude Hopkins.

Likes Fresh Meat

I WILL tell you of the queerest pet I ever had. It was a large black spider. It had a web across a window in our basement. My brother and I would catch flies for it and it would watch for us and then dart out and get the flies. It would not take flies if they were dead; we had to have live ones. We did not fondle our pet but it was very interesting to watch.

Pennsylvania. Vernon Mardis.

Be Kind to Animals

THE Be Kind to Animals Anniversary which is being celebrated this week through newspapers, radio and schools, has a worthy motive in seeking kindly treatment of dumb creatures.

Balaam's ass spoke thus: "What have I done unto thee that thou has smitten me?" Your horse might wish to say:

"Please keep the harness from that sore until it heals."

"That sore spot feels better now since you have bathed and treated it."

"Wait; that cold bit is awful."

"Easy now, this street is very slippery. How about new corks?"

"Why did you hit me when I stumbled?"

"A good, clean bed will save time cleaning me."

"Clean me well, and I will feel better, look better and work better."

"Remember, keeping me good looking is



Before the Pet Lamb Grew Up.
By Inez Mellett, Pennsylvania

good advertising, adds to your dignity and to my comfort.

"I want a blanket when standing; temperature below 40 degrees; in windy places; below 50 degrees; when heated from work; below 60 degrees; in cold stable; below 30 degrees."

"When I fall, loosen the harness and push the wagon back. Hold my head until all is ready, then assist me to rise."

"I want enough good, clean hay. To me it is the bread of life. Three good feeds and water frequently on hot days help me feel well, look well and work well."

"Try me without blinders. You may find that we both will be happier."

"Your whip hurts me and degrades you. It is a bad habit."

"Give me the gift of the Golden Rule."

A CORRECTION

The first prize in our recent cartoon contest "When the Pet Lamb Grew Up," should have been credited to Marvin Detweiler instead of Mercy Clark.

FLOWERY ROMANCE

YOUR seed catalogue will be a great help in finding the names of these flowers. Five book prizes will be given to the ones who send in the correct answers accompanied by the most interesting letter, poem or picture on any subject.

Address: Contest Editor, Pennsylvania Farmer, 7201 Penn. Ave., Pittsburgh, Pa.

1. The heroine's name and the color of her hair. (one flower.)

2. The hero's name and what he wrote with. (one flower.)

3. Their favorite pastime in winter.

4. What he did when he proposed.

5. The ghastly trophy which he offered her.

6. What she said when he knelt before her.

7. The person to whom she referred him.

8. The hour for the wedding.

9. The maid-of-honor and the color of her eyes.

10. The disposition and name of the best man.

11. The four bridesmaids.

12. The color of their dresses.

13. What the bride wore in her hair.

14. What she wore on her feet.

15. The clergyman.

16. The number of guests that attended the wedding.

17. The minister's fee.

18. The length of their happiness.

Little Folks

WHAT IS COMING?

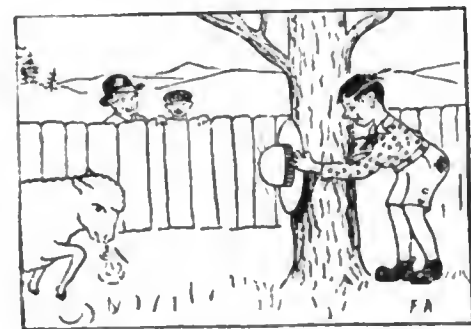
NOW all you small folks under twelve, here is the very easiest puzzle we have had. When you read these sentences you'll think the editor has been very careless indeed to leave out so many letters. But look again! This is where you come in. Read over each word carefully and put down the missing letters on a sheet of paper. They should spell two words. Send your answer back immediately to Little Folks' Corner, Pennsylvania Farmer, 7201 Penn. Avenue, Pittsburgh, Pa., with a letter telling what you are going to do when you grow up. There will be surprise prizes for the ten best letters and correct answer to the puzzle. Be sure to write plainly, give your name, address and age.

Missing Word Puzzle

1. Have you seen Mary's new hat?
2. These spring days are so nice.
3. Millions for defense, but not one cent for tribute.
4. Do you slute the flag?
5. Stand up straight and all.
6. Don't give up the ship.
7. Soon roses will be blooming.
8. It is an interesting sight to see.
9. Happy days are here again.
10. Did you pass your examination?
11. Be sure to write plainly.
12. Think before you speak.

PRIZE WINNERS

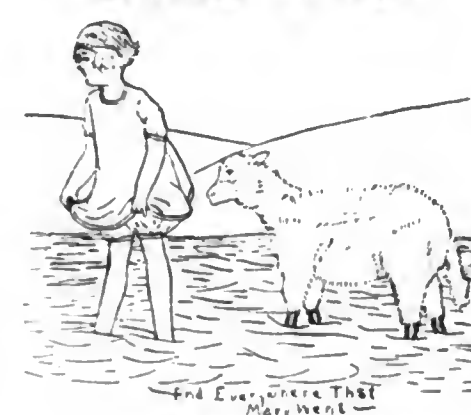
At the Macquerade Party.
Margaret Horcher, Eleanor Hershey, Betty White, George Dukes, Helen Galloway, Sara Lore, Helen L. Martin, Sara Diebler, Arlene Hubine, Hazel L. Royer, Virginia Grim, Irene Schaeffer, Myrtle Eap, Mary Reicher, Mary Frances Macselman, Louise Arndt, Winifred Miller and Lillian Reber.



Frank Anderson, West Virginia



Edgar Arnold Thompson, Pennsylvania



Elizabeth Row, West Virginia



Walter McElwain, Pennsylvania



Baryard Supremacy
By Mary Sage, New Jersey

PASSING EVENTS IN PICTURES



(Copyright by Underwood & Underwood)

1. Despite the abolition of the famous White House stables, Mrs. Hoover has become an enthusiastic equestrian and is frequently seen galloping along the bridle paths of beautiful Rock Creek Park at Washington, accompanied by house guests and a young cavalry officer of the White House staff.
2. Boston, Mass.—An excellent view of the C. S. S. Northampton, which was christened a few months ago by Mrs. Coolidge, wife of the former President, in drydock at the Charlestown Navy Yard for a painting and cleaning.
3. Aldenham, England.—Photo shows prize pigs at the farm of J. P. Morgan, American capitalist, near Watford, where preparations are afoot for the coming stock shows.

4. Carbon Hill, Ala.—Photo shows footprints of the newly-named, "Cincosaurus Cobbi," found in the hard carbonaceous shale about 30 inches above the Jagger coal seam in Mine No. 11 of the Galloway Coal Co., of Memphis, Tenn. The discoveries in this mine are considered by prominent geologists to be among the oldest and best preserved tracks of prehistoric animals.

5. Speaking from the Cabinet Room in the Executive Offices at Washington, President Herbert Hoover recently inaugurated direct telephone communication by radio between the United States and Argentina, Chile and Uruguay.

Photo shows, left to right, Dr. J. Valera, Uruguayan Minister to the United States, Acting Secretary of State Joseph P. Cotton, President Hoover, Walter S. Gifford, President of the American Telephone and Telegraph Co., and Sosthenes Behn, President of the International Telephone and Telegraph Co.

6. Pasadena, Calif.—Photo shows right, Curtis W. Willock, formerly of New York, about to drive before stepping into his new "self-electric" to drive to the next shot. Advised by his physicians to avoid undue fatigue, Mr. Willock refused to give up his favorite game, but compromised by having this trim little electric car built to carry him between long shots. The novel car will do 11 miles an hour and cost \$1,500 to build.

Concrete for Your Dairy Barn Floor

Concrete is the most economical and durable sanitary material for your dairy barn floor.

A concrete floor is an important aid in ridding the barn of infectious diseases such as tuberculosis and contagious abortion—for it is readily disinfected.

And your time in performing daily routine chores is lessened by concrete floors for they are easier to clean.

Free Construction Plans
Your County Agricultural Agent has a new, four-page leaflet describing how to build a concrete floor and containing plans.

Ask him for your free copy or send the coupon.

Portland Cement Association
1315 Walnut St.
PHILADELPHIA

Please send me a free copy of your booklet on "How to Build Concrete Floors in Dairy Barns."

Name.....

St. Address (or R. F. D.).....

City..... State.....

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every day in the year with

The New STAR

The New Star Windmill pumps readily in 8 to 10 mile winds—the kind in which the average mill is useless, and the kind which predominate through the year. That's why there is always plenty of water with a Star on the job. Ask for NEW Improved Star Windmill Book which tells all about it.

Get this Book
FLINT & WALLING MANUFACTURING COMPANY
24 Oak Street, Kalamazoo, Mich.
by THE BUILDERS of HOOSIER WATER SERVICE

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[SPECIAL—Illustrated worm bulletins will be sent you free on request. No. 619, on Livestock; No. 621 & 622, on Poultry; No. 623, on Dogs and Foxes.]

**NEMA
WORM
CAPSULES
REMOVE**

Hookworms, Stomach Worms, Large Roundworms in HOGS, SHEEP AND POULTRY

Nema Capsules at Drug Stores
When writing for bulletins address
Animal Industry Dept., Desk N-8D
PARKE, DAVIS & CO.
Detroit, Michigan • Walkerville, Ontario

When writing advertisers please mention Pennsylvania Farmer



New Ayrshire Inspector

THE Ayrshire Breeders' Association has appointed Tom P. Whittaker of Bradford, Pennsylvania, to the newly created position of Herd Test Inspector. Mr. Whittaker will visit breeders doing herd testing, checking feed, production and registration records. In addition, he will cooperate with testers from the various colleges and dairy herd improvement associations, in an effort to improve the technique and methods of the Ayrshire Herd Test.

Mr. Whittaker graduated in 1929 from Pennsylvania State College, where he specialized in dairy husbandry. Since graduation he has been in charge of the Allegheny county, Pennsylvania, dairy herd improvement association.

Garlic

By L. W. LIGHTY

IT ruins the milk and it ruins the wheat. The cattle are very fond of it and run over the field in search of it. An inquirer wants to know all about it. He has heard it can be eradicated. He has also heard that the garlic flavor can be taken out of the milk.

After we have spent millions and made billions of noise about the corn borer, conservative scientists tell us we have to learn to live with it permanently. That is the way with the garlic in your fields. We can reduce it very greatly. Fall plowing, winter stirring of the ground if possible, clean culture with a hood crop will seemingly put it out of commission, but in a few years you will see some garlic again and the fight has to continue.

I have worked and watched the game over two score years; the garlic still shows up when conditions favor, but not enough to do great damage. Small clumps can be greatly discouraged if given a heavy dose of kerosene and then covered with salt. All grasses are killed of course, but the garlic will not show up in that place any more.

Presumably the garlic flavor can be removed from milk, but like changing gross metals into gold it is more theoretical than practical. Under ordinary conditions if the cows are taken off the pasture three hours before milking and the milking done in a well ventilated place the flavor will hardly be noticed. The more garlic bulletins I consult the more confused I become as to the varieties of garlic, but in the end it all smells and tastes the same, and that is where our troubles arise.

"Folks Are Queer"

That was the remark of a visitor I had lately.

He said, "Veal calves are my milking machines. I keep ten to fourteen cows and often have eighteen to twenty calves taking the milk and making splendid vealers. Many of my neighbors want to sell all the milk as soon as it is good after freshening. I buy the calves, they sell the milk and I

Wonder FEEDS
Cows and poultry, horses and hogs do better on R-K-D Wonder Feeds. Your dealer carries them. See him today or write us direct.
ARCADY FARMS MILLING COMPANY
52 Brooks Building
CHICAGO, ILLINOIS

FREE WRITE TODAY for FREE POULTRY and DAIRY BOOKS



On way to next silo

SENSATIONAL NEW FILLER

THE New Ross Cutter & Filler is mounted on any standard tractor with direct power connection to the tractor. It saves more than three hours make ready on each job. Blower pipe may be positioned before arrival. Pays for itself in one season of custom filling. Write today for full details.

ROSS Cutter & Filler CO., Springfield, Ohio
(Established 1850) 106 Warder St.

for Sprains and Bruises

Assorbing redness, thickened swollen tissues, soft curbs, filled tendons, soreness from bruises or strains. Does not blister, remove hair or lay up horse. \$2.50 at drug stores, or postpaid. Horse book 1-B free. Write for it today.

Read this: "Horse had large swelling just below knee. New gages band and reappeared. Horse good as ever. Have used Absorbine for years with great success."

ABSORBINE
TRADE MARK REG. U.S. PAT. OFF.
W. F. YOUNG, Inc. 354 Lyman St., Springfield, Mass.

CHAMPION
WORLD'S GREATEST PERMANENT SILO
Save the Horse Treatment
FREE! Send now for the greatest horse book ever given away. Tells how to locate and treat all lamenesses. Book, sample guarantee, and proof that "Save-the-Horse" makes good, all sent free. Write today.
TROY CHEMICAL CO., 377 State Street, Binghamton, N.Y.
Ask your druggist—or order direct.

The last word
In treating all lamenesses, while horse waits, 1,000,000 users endorse humane, guaranteed **Save-the-Horse Treatment**

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SILOS
Wood-Concrete-Tile
New features—step every 15", large opening. New tile, our own factory connection. Special Price \$60.
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WANTED—Farm Products
Eggs, Potatoes, etc. Write for information
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See you saw the advertisement in Pennsylvania Farmer when you are writing to our advertisers

A soothing, healing APPLICATION



To keep udders and teats in a healthy, normal condition is to avoid the risks of neglect, the cost of improper treatment. The QUICK healing properties of BAG BALM are carried into the tissues by an exclusive penetrating antiseptic oil, working wonders in treating Caked Bag, Bunches and other disorders, healing cuts, chaps, bruises and inflammations. BAG BALM is more than an ordinary ointment—it is a tried-and-proven healing application for all farm uses on delicate tissues where vigorous penetration is needed.

Clean, pleasant, cannot taint milk. Big 10-oz. pack—see at dealers or by mail postpaid. Free cow book (illustrated) on request.
DAIRY ASSOCIATION CO., Inc.
Lyndonville, Vermont



For trouble-free Udders and Teats



10 DROPS Only 60¢

UNADILLA SILOS are Strong

...they are made of sound, close-joined, tight-jointed and seasoned wood. They are anchored firmly to the ground. They are so constructed that they weather-high-winds.

Send for catalog Today and see how easy it is to get a real cash discount. Time payments taken if desired.

Tubs, Tanks, Vats.
UNADILLA SILO COMPANY
Box 1, Unadilla, N.Y.

POTTSTOWN

Concrete Stave Silos
are built of reinforced concrete staves that are perfectly smooth and of a standard density. Fire, Moisture and Decay-proof.

Buy a POTTSTOWN Silo erected and insured of Quality—Permanency and Economy.

Write for descriptive literature.
POTTSTOWN CEMENT BLOCK CO
Box 185, Pottstown, Pa.

NEWTON'S Compound
Hemorrhoids, Coughs, Croup, Whooping Cough, Worms. Most for cost. Two also satisfactory for Hives or money back. \$1.25 per can. Dealers or by mail. The Newton Remedy Co. Toledo, Ohio.



Spending millions locally

THE nation-wide business of Swift & Company should not be allowed to obscure its local character. This is explained in an interesting way by the new Swift Year Book.

For example, in the state of Iowa alone, Swift produce plants pay about \$20,000,000 a year to farmers for butterfat, eggs and poultry.

Similarly, Swift packing plants, cotton oil mills and refineries, and other units figure largely in the economic life of their communities. They bring millions of dollars into the states where they are located.

Swift & Company plants buy raw materials in quantity, and the money so spent remains in the community. These plants purchase many other goods and services locally, just as other home industries do.

Moreover, these units employ thousands of local citizens. These employees spend their money locally and many of them own

their homes. They are working to encourage good citizenship, and to develop their local communities into better places in which to live.

Send for Year Book

Swift & Company's 1930 Year Book gives many new facts about both local and national aspects of our business. In addition, it contains news of recent developments in the livestock industry and in the distribution of farm products to consumers. Mail coupon for free copy.

Swift & Company
Public Relations Dept.
4079 Packers Avenue,
U.S. Yards, Chicago, Ill.

Please send me a FREE copy of Swift & Company's 1930 Year Book.

Name.....

Address.....

City..... State.....

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STORM-PROOF
The Economy Silos are built to last. Patented Storm-Proof Anchor equipment is supplied with each silo. Prevents lifting—twisting—collapsing. Storm-proof and permanent.
Equipped with either the continuous small self-adjusting doors, or swinging Illinois Doors.
Economy Silos are made of best grade Oregon Fir or Long Leaf Yellow Pine. Also silos of Glazed Tile and Cement Stave. Send for free catalog.

The Economy Silo & Mfg. Co., Dept. A, Frederick, Md.

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WE PAY THE FREIGHT
LEADCLAD KEystone COPPER BEARING
WIRE FENCE AND **APEX-GALVANIZED ROOFING**

CONSUMERS MFG. & SUPPLY CO.
Dept. F, Moundsville, W. Va.

THIS Plus CRANELOX Equals THIS

Silo Resurrection Time

NOW—this month—get your sick Silo cured for Fall filling—with Cranelex Covering. The cost is small; the result a Silo at least three times stronger and warmer than the old one ever was! Cranelex Covering, a tough wooden band that winds spirally over the staves, has rebuilt thousands of Silos—some over 20 years ago—that are making and keeping silage perfectly.

Ask us for facts about Cranelex—while there's time to rebuild this year, and stop silage waste. No obligation.

If you need a new Silo, you'll find it in The Crane Line—wood stave, triple wall, tile or concrete—which ever best suits your needs.

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50 Grant Street NORWICH, N. Y.

When writing advertisers please mention Pennsylvania Farmer

Farmer's Business Letter

A DEVELOPMENT of the first rank in the agriculture of the Corn Belt this week was the coming of rains to break a drought that was becoming extensive and serious. Hot, dry weather was accompanied by high winds and in some places there were dust storms exactly like midsummer. All sections received rain except the western counties of Kansas and Oklahoma. Hundreds of thousands of acres of wheat were saved, though severe injury had already taken place. The rains had a bearish effect on wheat prices.

Some little corn has already been planted in west central Illinois, the season having been extraordinarily favorable for field work, but generally farmers do not choose to plant earlier than May 1.

Wheat prices have gone off a dime from the recent high point, due mainly to the more favorable turn in the weather. The trade seems to expect lower rather than higher wheat prices in the coming crop. The carry-over promises to be large, and the export outlook is not expected to be good.

Corn has been weak. While receipts were light this week, they have been rather more liberal than expected, with shipping demand only fair.

Attack Farm Board

The fight against the Farm Board came out in the open this week. It was announced that the Minneapolis Grain Exchange had started a campaign among all grain, produce and commodity exchanges of the country in an effort to bring pressure to bear on the United States Chamber of Commerce to put that influential body definitely against the Farm Marketing Act.

The Memphis Cotton Exchange has asked Congress to start an investigation of the Farm Board. In a resolution the exchange asserted that the Board "appears at present to be devoting its attention to artificially elevating prices in defiance of the law of supply and demand."

"It appears that this manipulation has resulted in almost complete cessation of the demand for actual cotton from mills and merchants," the resolution charged. "... It has undermined the confidence of the mill and foreign buyers in the stability of our exchanges and marketing system and has seriously interfered with the distribution of the present crop."

After three months of service W. G. Kellogg has resigned as president of the Farmers' National Grain Corporation and as vice-president of the Grain Stabilization Corporation, the Farm Board's wheat marketing agencies, because "of the pressure of other affairs."

Storage Stocks

Stocks of lard and pork in store in Chicago on April 15 were less than half as large as on the same date a year ago. For the entire United States the latest figures are for April 1, issued this week. The report shows a total of 105 million pounds of lard, against 179 million a year ago, and an average of 136 million pounds for the past five years. Of pork, the April 1 stocks in the United States amounted to 753 million pounds, comparing with 922 million pounds a year earlier, and 823 million pounds, the average for the past five years. These storage figures are strongly on

the favorable side of the hog market, and would have considerable effect on prices if general business conditions were better.

Hogs Lower

With only moderate receipts the hog market worked a little lower this week. Eleven markets had 468,000 hogs, against 483,000 last week and 512,000 the same week last year. Average price for the week, at \$10.10, compared with \$10.25 last week and \$11.40 a year ago.

Weights are fairly strong, average this week being 237 pounds, against 235 last week and 240 a year ago. In the hog futures market, prices in the main were a little lower than last week. April lights sold at \$10.50 to \$10.60, May lights at \$10.50 to \$10.75, June lights at \$10.35 to \$10.40, and September lights at \$10.40 to \$10.50. Heavy hogs for June delivery sold at \$10.10, and for September delivery at \$10.40.

Farmers who have been picking up hogs in the country report paying 10 to 10 1/2 cents for shotes weighing 80 to 90 pounds, with not many available.

Lamb Feeders Hard Hit

Reports from Colorado and Nebraska indicate that the lamb feeders of

those states still have half a million lambs to market, with the first of the California spring crop due next week. It is a discouraging situation. Losses have been running \$4 to \$5 a head, and it is figured that at least half of these big feeders will be unable to finance feeding next year. If this proves to be the case, the demand for feeding lambs will be sharply reduced, unless other feeders make up the difference, which seems unlikely. As yet no lambs have been contracted for fall delivery, which is unusual.

There is some price talk. The feeders are talking five-cent lambs, and the producers ten-cent lambs. The price level come fall will no doubt be somewhere between \$10 and \$11. In all, it would appear that there may be some bargains in the sheep market for those inclined to stock up.

Further Decline in Lambs

The lamb market went off again this week, the decline being 50 to 75 cents, and in some cases as much as \$1 at the close. Average lamb price for the week was \$9.10 against \$9.47 a week ago and \$17.10 a year ago—a decrease of exactly \$8 compared with a year ago.

Receipts were largest in some times—98,700 here, of which no less than 70,000 were Colorado-fed lambs. Sheep were off with lambs, the decline being 25 to 50 cents. There is complaint that

the reduction in lamb prices has not been fully reflected in retail shops, and figures are presented to show that some retailers are asking nearly as much for lamb as they did a year ago.

Decline in Cattle

It was a very light week in cattle marketing—\$4,500 here against \$4,500 a year ago. In spite of this the market was weak, almost demoralized some days. Some recovery took place at the week-end, on runs that were exceedingly small. At that, light steers, which were in poor demand, were 50 to 75 cents and in some cases \$1 lower, with heavy, finished steers, which are scarce, closing about steady with a week ago.

Average steer price this week at \$11.85 compared with \$12.10 last week and \$13.75 a year ago. Best heifers sold at \$14.75 this week, and best yearlings at \$13.75. Bulk of steers sold at \$10.75 to \$11.75, against \$10.75 to \$13.50 last week, \$13.50 to \$14.50 a year ago, \$11.75 to \$13.50 two years ago, these prices being the highest paid for cattle back to 1920.

The cattle trade is pessimistic, due to business depression and the belief that there will be plenty of beef during coming months.

Cottonseed Meal

A report from Memphis, Tenn., says that stocks of cottonseed meal west of the river are barely adequate to supply local demand for the balance of the season, and cannot be considered as a source of supply for northern and eastern consumption. In the South, east heavy buying of cottonseed meal by fertilizers and disappointing seed receipts have greatly reduced stocks of cottonseed meal, and mills have been buying back their contracts. This has turned the southeast from being the weakest spot in the market to the strongest, and mill offerings have practically dried up from that section.

Chicago, April 19, 1930 Watson

WOOL MARKET

Boston, April 18.—The bulk of the business reported for the current week on domestic grease wools has been on 58s, 60s and 62s. Territory wools, says the U. S. Department of Agriculture Market News Service, only moderate quantities, however, have been sold. Prices were about 10 percent lower than last week. Improvement was reported in the demand for wools suitable for the woolen trade. Limited sales were closed on spot offerings of some Australian wools at fairly high prices. According to private cables, dealings from the primary markets are firm with American operators continuing to show only limited interest.

Fleece wools were very quiet. Only restricted offerings of 64s and finer fleeces are available and quotations therefor are only nominal. Scattered inquiries were received by some dealers on the 58s, 60s, strictly combing qualities but no sales were reported.

The movement of wool both in the West and the bright wool is reported sluggish. Around 75,000 lbs. of Texas wool was sold last week at 27c for 12 months and 25c for 24 months. In the bright wool sales very little wool has been sold or consigned.

Domestic Wool Quotations

Grease Basis, Ohio and Similar
64s, 70s, 80s (fine) strictly combing 26 1/2
64s, 70s, 80s (fine) French combing 26 1/2
64s, 70s, 80s (fine) clothing 26 1/2
58s, 60s, (1 1/2-blood) strictly combing 25 1/2
58s, 60s, (1 1/2-blood) French combing 25 1/2
58s, 60s, (1 1/2-blood) clothing 25 1/2
56s, (3 1/2-blood) strictly combing 25 1/2
56s, (3 1/2-blood) clothing 25 1/2
48s, 50s (1 1/2-blood) strictly combing 24 1/2
48s, 50s (1 1/2-blood) clothing 24 1/2
46s, (low 1 1/2-blood) strictly combing 24 1/2
36s, 40s, 44s, (common and broad) 20 1/2

ACI, Virginia, bu. choice, 90¢/51.

Butter.—Country, 45¢/50¢; separator, 50¢/55¢.

Eggs.—Fresh, 26¢/28¢.

Poultry.—Hens, 28¢/34¢ lb.; Leghorns, dressed, 1.25¢/1.75¢ each; heavy, 1.50¢/2.25¢ each.

Fruits.—APPLES, 20¢/25¢ lb.; pk.: Stayman, 25¢/30¢; extra firsts, 25¢/30¢; second, 24¢/29¢; third, 23¢/28¢; fourth, 22¢/27¢; fifth, 21¢/26¢; sixth, 20¢/25¢; seventh, 19¢/24¢; eighth, 18¢/23¢; ninth, 17¢/22¢; tenth, 16¢/21¢; eleventh, 15¢/20¢; twelfth, 14¢/19¢; thirteenth, 13¢/18¢; fourteenth, 12¢/17¢; fifteenth, 11¢/16¢; sixteenth, 10¢/15¢; seventeenth, 9¢/14¢; eighteenth, 8¢/13¢; nineteenth, 7¢/12¢; twentieth, 6¢/11¢; twenty-first, 5¢/10¢; twenty-second, 4¢/9¢; twenty-third, 3¢/8¢; twenty-fourth, 2¢/7¢; twenty-fifth, 1¢/6¢; twenty-sixth, 10¢/15¢; twenty-seventh, 9¢/14¢; twenty-eighth, 8¢/13¢; twenty-ninth, 7¢/12¢; thirtieth, 6¢/11¢; thirty-first, 5¢/10¢; thirty-second, 4¢/9¢; thirty-third, 3¢/8¢; thirty-fourth, 2¢/7¢; thirty-fifth, 1¢/6¢; thirty-sixth, 10¢/15¢; thirty-seventh, 9¢/14¢; thirty-eighth, 8¢/13¢; thirty-ninth, 7¢/12¢; fortieth, 6¢/11¢; forty-first, 5¢/10¢; forty-second, 4¢/9¢; forty-third, 3¢/8¢; forty-fourth, 2¢/7¢; forty-fifth, 1¢/6¢; forty-sixth, 10¢/15¢; forty-seventh, 9¢/14¢; forty-eighth, 8¢/13¢; forty-ninth, 7¢/12¢; fiftieth, 6¢/11¢; fifty-first, 5¢/10¢; fifty-second, 4¢/9¢; fifty-third, 3¢/8¢; fifty-fourth, 2¢/7¢; fifty-fifth, 1¢/6¢; fifty-sixth, 10¢/15¢; fifty-seventh, 9¢/14¢; fifty-eighth, 8¢/13¢; fifty-ninth, 7¢/12¢; sixtieth, 6¢/11¢; sixty-first, 5¢/10¢; sixty-second, 4¢/9¢; sixty-third, 3¢/8¢; sixty-fourth, 2¢/7¢; sixty-fifth, 1¢/6¢; sixty-sixth, 10¢/15¢; sixty-seventh, 9¢/14¢; sixty-eighth, 8¢/13¢; sixty-ninth, 7¢/12¢; seventieth, 6¢/11¢; seventy-first, 5¢/10¢; seventy-second, 4¢/9¢; seventy-third, 3¢/8¢; seventy-fourth, 2¢/7¢; seventy-fifth, 1¢/6¢; seventy-sixth, 10¢/15¢; seventy-seventh, 9¢/14¢; seventy-eighth, 8¢/13¢; seventy-ninth, 7¢/12¢; eightieth, 6¢/11¢; eighty-first, 5¢/10¢; eighty-second, 4¢/9¢; eighty-third, 3¢/8¢; eighty-fourth, 2¢/7¢; eighty-fifth, 1¢/6¢; eighty-sixth, 10¢/15¢; eighty-seventh, 9¢/14¢; eighty-eighth, 8¢/13¢; eighty-ninth, 7¢/12¢; ninetieth, 6¢/11¢; ninety-first, 5¢/10¢; ninety-second, 4¢/9¢; ninety-third, 3¢/8¢; ninety-fourth, 2¢/7¢; 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REDUCED PRICES

May-June Delivery

It does a
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"Kerlin - Quality"

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100.
80.
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Write at once for Catalogue

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and up to 6 pounds
England.
rvel" Pullet

KERLIN'S GRAND VIEW

| | | |
|---------|---------|--------|
| 100 | 500 | 1,000 |
| \$13.00 | \$60.00 | \$115. |
| 15.00 | 70.00 | 135. |
| 16.00 | 75.00 | 145. |
| 18.00 | 85.00 | 160. |

gs. 25c each.
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Box 34-11, Center Hall, Penna.

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| 100 | 500 | 1,000 |
| \$10.00 | \$47.50 | \$90.00 |
| 12.00 | 57.50 | 110.00 |
| 12.00 | 57.50 | 110.00 |

SH OR C. O. D. P
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The Story of Woodbine Farm

(Continued from page 17.)

had on the grounds. It was my duty to welcome the people who came into the booth and to answer the many questions the visitors asked, if I could. We had all kinds of grains, vegetables, fruits, tobacco, cotton and bales of timothy, clover and alfalfa hay. At a particular moment there was no one in the booth when a tall slender man wearing a light hat and a gray suit of clothes stepped in and began to pluck at the alfalfa.

"Are you interested in alfalfa?" I asked.

"Somewhat," was his reply. Then I began to expatiate upon its wonderful qualities. To which my listener would exclaim, "Is it possible?"

About the time I was concluding my little speech I said, "But you cannot grow this wonderful plant without inoculation."

"Now just what do you mean by inoculation?" my visitor asked.

Then I went on to tell him that alfalfa could not get enough nitrogen out of the average soil and that it must be assisted by certain bacteria that live in the nodules on the roots of the alfalfa, but these bacteria are not always present in the soil and must at times be put into it by the process called inoculation. Then he began to ask me some questions from which I came to the conclusion that he knew too much not to know about alfalfa. In other words I made up my mind that he was just trying to find out how much I really knew about alfalfa.

I finally said, "Where are you from?" and he said: "From Ohio."

"What is your name, please?"

"My name is Wing," he said.

I slapped him on the shoulder and said, "Joe, I have spent 15 minutes extolling the wonders of alfalfa to a man who has forgotten more than I ever knew about the plant."

It was the late Joseph E. Wing, who has done more to promote the growth of alfalfa than have any half dozen men in America. I had read his book and many of the articles which he had written on alfalfa but had never met the man himself.

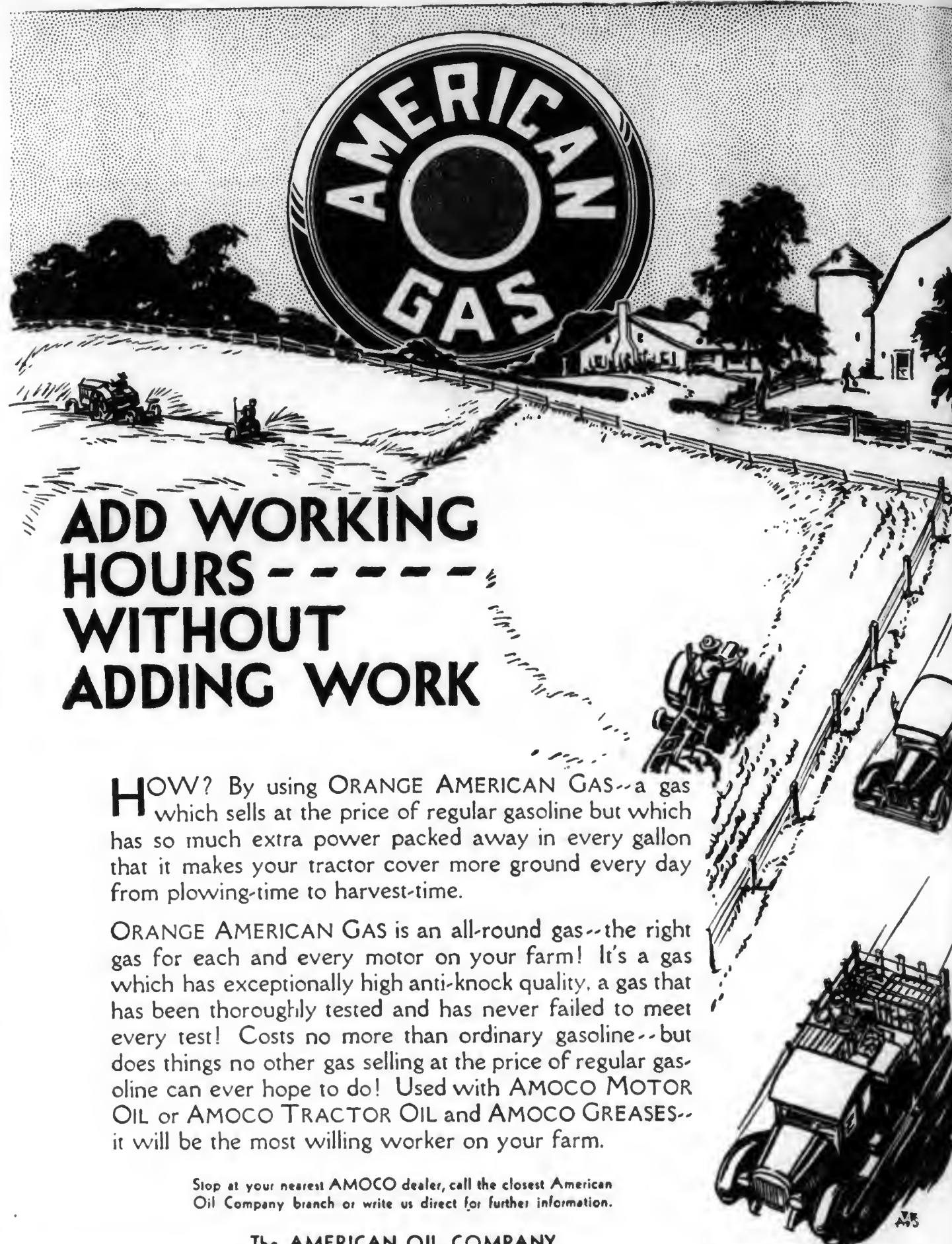
In Ohio

I have done less institute work in Pennsylvania than in any other state in which I have worked, and yet I have been in more than twenty counties of this state. The institutes here were abolished some years ago. I have spent more days in actual institute work in Ohio than in any other state. In about 1904 I first went to the state, and worked for four winters continuously. At that time two-day institutes were held, and two speakers were sent to each place.

My first co-worker was C. R. Wagner, of Ohio, and my first institute was in Lawrence county. I have been back at this same point twice since that time. Mr. Calvert was then the Secretary of the Board of Agriculture and while I never met him during the four seasons of my work there, I want here to acknowledge my obligations to him for the courtesies he extended to me. I have never worked in any state where I felt that the authorities tried harder to get value received for the money paid the speakers, and for this they are to be commended. We usually spoke three times the first day, once at each session, and twice the second day.

One of the most enjoyable itineraries I ever made was in my own state with Mr. Alva Agee. It was in the months of August and September. We began in the northern part of the state, Wetzel county, and worked the river counties and some of the next tier of counties back from the river. It was not a busy time for farmers and the meetings had been well advertised. At almost every point we had large crowds. At some places the meetings were held in a grove in order to accommodate the crowd.

(To be continued.)



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Farm Facts and Fancies

By ALVA AGEE

A Correction

RECENT statement on this page regarding annuities should not have been made. Taxing methods vary widely among the states and some may tax the estimated values of annuities. I greatly regret my failure to recognize this fact. Any one interested should learn definitely the practice in his own state.

Inoculation of Clover

There is good station evidence that the use of inoculants on the seed of legumes should be far more general than it is. Nobody knows where the line should be drawn—never will know probably—but inoculation will come to be considered a form of good insurance wherever there is not certainty that the bacteria are in the soil in abundance. The presence of some nodules on a previous crop is not evidence that a supply of new bacteria would not add greatly to the amount of nitrogen that would be stored by the legume.

If a soil is acid, or if it has not grown the legume most satisfactorily within a few years, the seed should be treated. The cost is small, and the only difficulty is that of getting pure cultures of the sort needed. Discussing this question, Doctor Conn, of the Geneva Station, says: "The general conclusion at the present time, therefore, is that with the increased sale of commercial legume inoculants on the markets in New York, some form of adequate control is desirable in order to protect the farmer from worthless cultures and to assure him that he is getting his money's worth." Right here is room for service by our stations and departments of agriculture in all our states.

Lime and Clover

Bro. Lighty certainly knows how to put the truth before you. It cheered me up to read his recent article on lime and what it can do to soils and people. And yet there was regret that I have been remiss in duty in recent years. There was a time when a week seemed partly wasted if something was not said about the use of lime where needed. The same faith remains, but first I became afraid that readers were weary of it all, and then the habit of neglecting the subject was formed. But the need remains. Mr. Lighty well says that "millions of acres are lime-hungry and will respond generously when well fed."

Fineness of Limestone

The last annual report of the Ohio Experiment Station is chock full of dependable information. All of us recall the time when we put a little more faith in burned limestone than in raw stone even when we used them in the relative quantities per acre that the chemist said was right. Some people continue to have that preference. The Ohio Station has been determining the time needed by a relatively fine limestone to become available, using six soil types and making duplicate tests. It used material fine enough to pass through a 48-mesh sieve but too coarse to pass through a 65-mesh sieve. It found that four-fifths of high-calcium stone had combined with the soil acids in less than six weeks after the first heavy rain. That is quick enough for any one under usual conditions. Magnesian limestone was slower in its action.

It is good practice to use limestone that is not ground extremely fine, partly because it costs less and partly because it is a good thing to have a portion of the application becoming available later on in the rotation. An application of lime not only lets clover and other legumes grow, but when made to a decidedly acid soil it lets most staple crops get more plant food out of the ground. Lime paves the road to better days for the owner of acid land. We didn't know

much about this thirty years ago, but it has become one of the fixed facts in our agriculture.

Broadcasting Woe

A person has a right to be downhearted when occasion warrants, but there is too much broadcasting of woe. If one does not like many things lying in the wide range between the league of nations and carrots, he should say so if the saying is any relief to him, but the existence of these supposed evils does not forecast our doom as a great people.

We may line up on any side of any question, if conscience directs, but the fact that many things are not going as we would have them is no evidence that we are not gradually making headway on the right road. If one has the misfortune of becoming old, which is not a matter of years nor anything necessary in the scheme of things, he may incline to think that the former days were the better ones. He is wrong and the proof is abundant. More and more we place human rights above property rights, and that is a true index of progress in the right direction. The goal ahead is plain, everyday, practical, sane, human sympathy. A country and a people are safe when they are traveling the road running in that general direction.

Maple Syrup and Sugar

WHEN the records for the season have been turned in and totaled we shall be much surprised if the figures do not indicate that we have just had one of the best maple syrup and sugar seasons we have had in a long time. It opened early—one man we know of made some syrup before the January State Farm Products Show—and it has just ended, and tomorrow's Good Friday. Most of the makers have their buckets put away for another ten months.

The season threatened to cut short with several different warm spells, but again and again late winter returned for a day or two, and again good sap resulted.

The quantity made is fairly large. One man is said to have made 1300 gallons of syrup, and we've no idea how much sugar, at least 500 pounds, and perhaps a thousand. And that from 2,400 buckets!

The quality also has been extremely high. There probably was never so much real "fancy" syrup made in this year. One producer has over 80 gallons of high-grade syrup to his credit out of slightly over 900 made in all. Probably 80 per cent of the making this year will grade "fancy." That is a record of which he can well feel proud. Some of his best is just about as clear as water from the choicest woodsy stream which flows past his extra money for "fancy" over the next grade will amount to nearly \$100.

He is a large producer, his sugar house having 2,900 buckets up this year.

More attention has been paid to grades than has been the case in recent years. To assist interested parties in learning to grade their products the State Bureau of Markets for the first time furnished all those producers who wanted them with sample bottles which show the grades in which the product should be classified. These have proved very helpful to those who secured them.

The country south of the Canadian border was practically cleaned out of syrup and sugar when the season began, due to a poor season two years ago, and a worse last year. The result was that the season opened on price, with a retail price of \$2.50 for Somerset county and much of the North Tier counties, particularly from Bradford county west, was some selling at \$3 retail in northern Pennsylvania.

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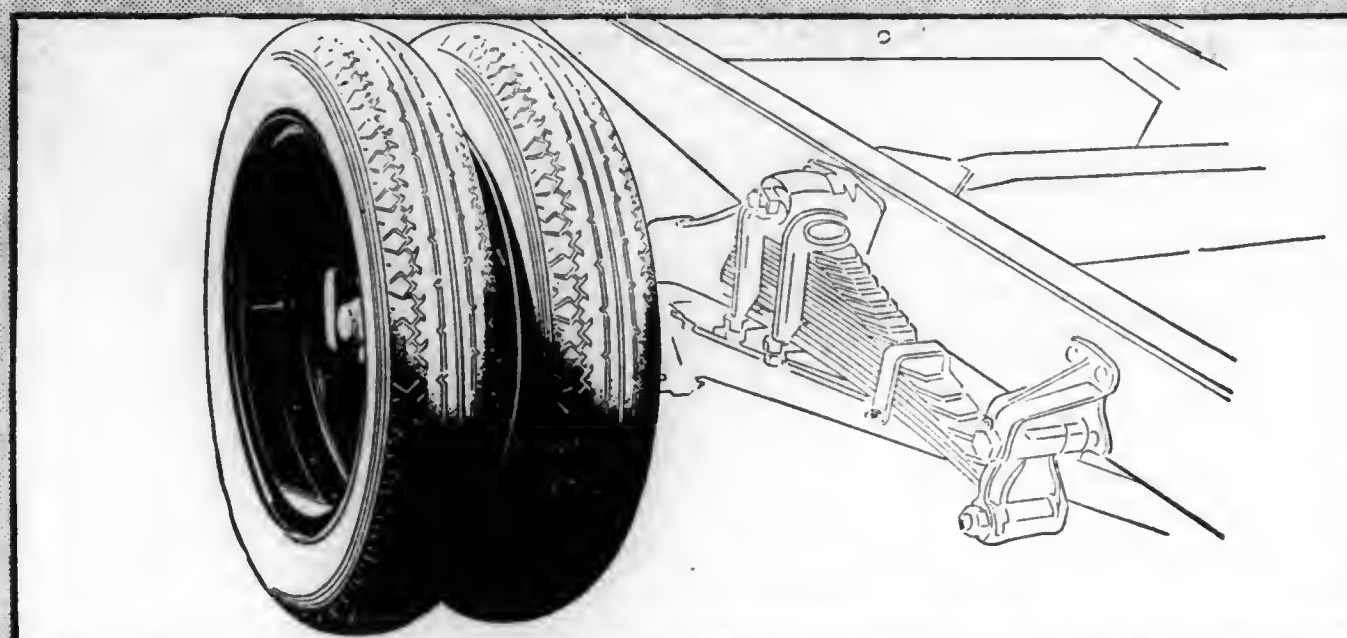
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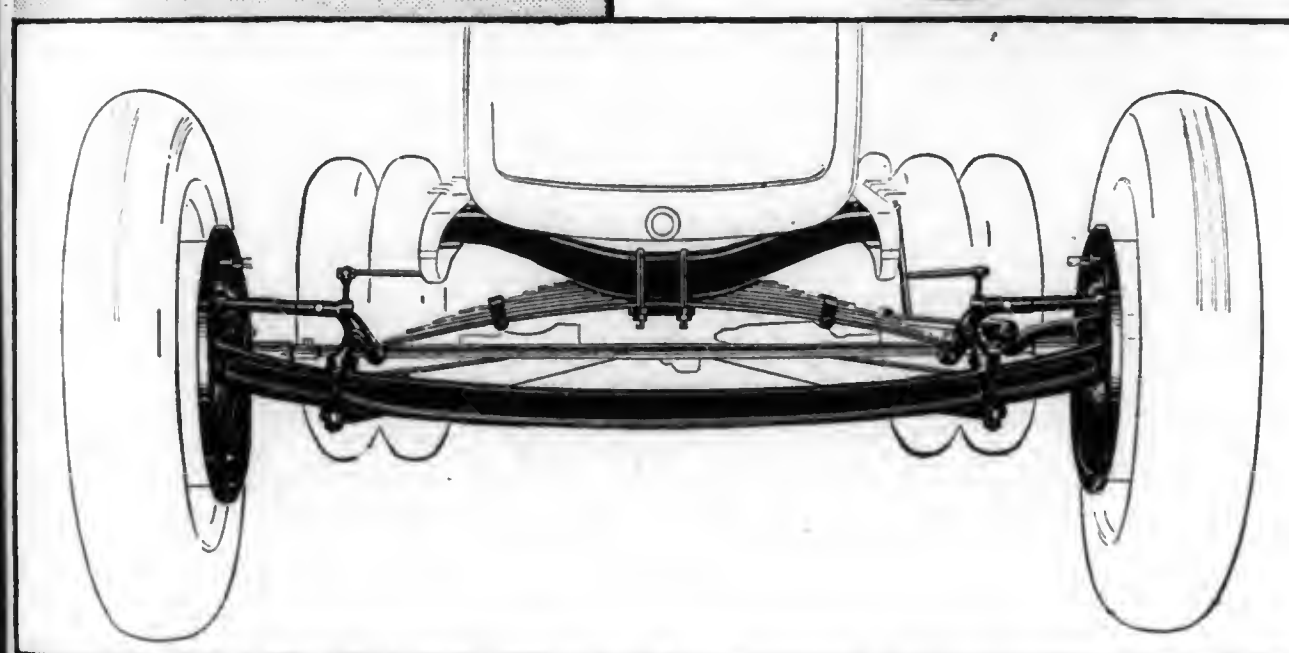
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The Ford Truck is reliable and economical

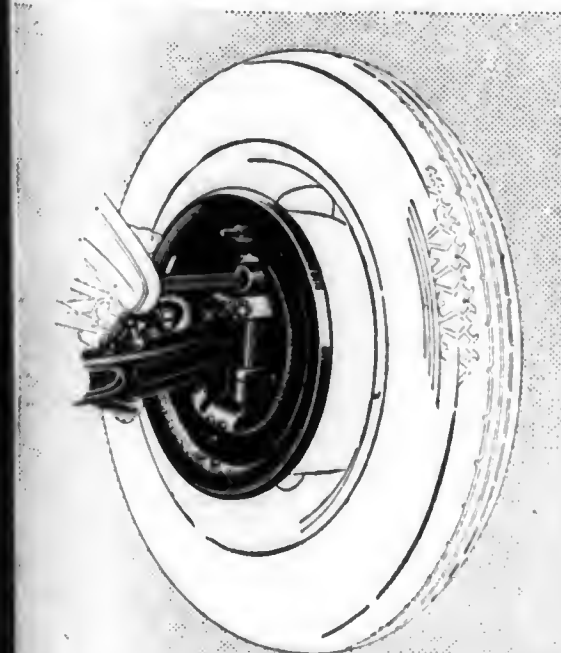
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Day after day, the Ford truck will work for you without the necessity of frequent adjustments to keep it in repair. It is a strong, burly truck. The new front axle, for example, is twice as strong as formerly. The front spring is heavier, with wider leaves. The front radius-rod is heavier, and king-pins, wheel bearings and thrust bearings are larger.

The front brakes also have been enlarged. They are now the same size as those

in the rear, providing increased braking area and a high degree of safety. The redesigned controls operate with little effort.

A valuable feature of the Ford truck is the new wheel equipment. Dual rear wheels can be installed at small additional cost. Balloon tires of one size are used throughout with the dual equipment, so that all six steel disc wheels and tires are interchangeable all around. Only one spare need be carried.

Both open and closed cabs are available with the standard stake body which is widely used for agricultural purposes. It can be fitted with grain-sides or cattle-racks. Bodies are strongly made, comfortable, and have ample loading space. Go to your Ford dealer's and examine this truck.





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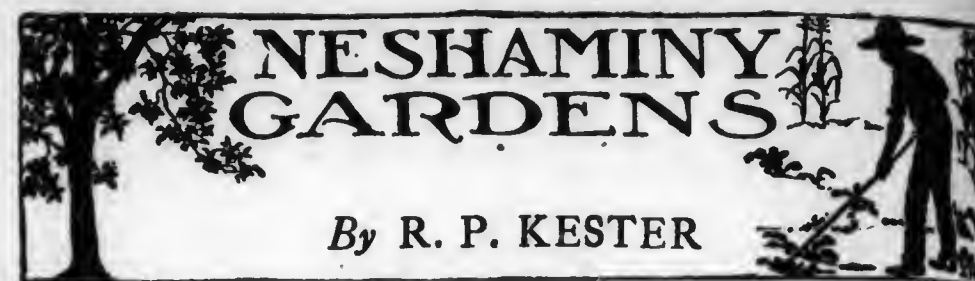
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AFTER four days of rain Easter Sunday dawned bright and crisp. There was frost here but not hard enough to damage the blossoms. Plums and pears are in full bloom and peaches are half open; this in spite of the fact that we have not had very much warm weather. We had our first mess of asparagus the day before Easter, but several warm days are necessary to bring forth a real cutting.

The following letter from a Chester county woman will no doubt be of interest to others, as several have written me concerning mulch paper:

"Some time ago you spoke of mulch paper and I feel it my duty to give you our experience, hoping it may help others.

"Last year we tried it out well and were more than satisfied. It is a wonderful help, both to conserve moisture and to smother weeds. Between the rows of peas we used the 18-inch paper and had a fine crop with no cultivation whatever. But best of all was the use of paper for sweet potatoes. A strip of the 36-inch paper was placed over each row (ridged). Holes were punched and the plants dropped in, watering in some instances which held the soil close. The plants grew rapidly, the vines spreading over the paper. We had a wonderful crop, mostly the red kind, as we like the red ones best. We have some to this date. The paper was kept in place with small stones and cloths of earth. We set 1,200 plants and gave them no cultivation whatever." Mrs. I. M. B.

The use of mulch paper seems to be getting off to a slow start, yet many of those who have tried it speak well of it. Of course, if it is to become a popular adjunct to the gardener's work it must prove to be cheaper than cultivation for keeping down weeds and providing a mulch.

The letter quoted above again shows the real farmer spirit, the willingness to pass on to others helpful information. In no other business that I know of is there the same generous attitude about telling others what is learned, in other words "giving away trade secrets." A rather narrow-minded, selfish farmer said to me one time that this habit of farmers indicated imbecility; that he never told anybody anything he learned. As might be expected, he was not a popular man in his neighborhood.

I am wondering whether we will continue to see as many rapid changes in the marketing system as we have been seeing. Instead of the producer's community being the field of his market, the world is now everybody's market. Rapid transportation, refrigeration and chain stores have revolutionized the entire business of feeding humanity. But so far, no perfect plan for retaining the full freshness of fruit and vegetables for any considerable time has been devised. The home grower will continue to have the edge on the home market in this respect, for the present at least.

In all probability there will be many home gardens planted this spring. The employment situation is not yet satisfactory, and every one who has a bit of ground will (or should) plant some vegetables. A few square feet of good soil well attended will eke out the contents of a flat pocketbook to a remarkable extent. The trouble with most back-lot gardeners is that the broiling sun of July and August has a most discouraging effect on the average in-door man.

What is started in hope and enthusiasm ends in despair and disaster.

The third generation of the Neshaminy Gardens family is full of pep this spring and is making good use of warmer weather. Several extensive projections have been begun already as the washerwoman can testify.

Friendly Talks

By Edgar L. Vincent

SOMETIMES farmer folks think they know all about shouldering heavy loads and carrying them on to the right ends. Haven't you heard them say something like this: "Who said, 'Bear ye one another's burdens?' must have been thinking of farmers. Aren't we always carrying burdens?"

And yet it very often happens that our ideas of carrying burdens strike a pretty high note. We think of some big thing we are doing, something other folks will remember as long as they live. So our notions on this subject seem to us the greatest and the grandest things we ever do.

But I like to think of old Aunt Pat. She was a little old woman who lived and worked for a neighbor farmer of ours. One of her arms was partly withered, and in intellect she was the humblest of the humble; but how faithfully she did work! The very smallest things of the home fell to her to do, and she did them all so faithfully and so patiently! If ever a woman spent her very life bearing burdens she did. And her reward was so meager, both in money and in friendliness! If ever she does receive any return for her burden-bearing it will have to be in a better world than this.

But will you pardon me if I say that it seems to me Aunt Pat more truly lived out the spirit of burden-bearing than some of the rest of us who are depending on our big things to win us reward? In the truest and best sense of the word when we go down and help some half-sick neighbor to make his garden or to weed out his corn, or get in his hay when a thunderstorm is coming up or any one of a thousand and one common, everyday things, we are bearing our brother's burdens, and may so best be fulfilling the law of the Great Burdenbearer.

Only, we need to live a bit nearer to Him, so that we can catch His spirit and that will help us to see things in their right light.

SOME years ago while traveling across the entire country of Brazil, in size as large as the United States, I saw millions of acres of level, fertile soil still untouched by the plow, acres which can easily be made to grow corn and wheat.

Just recently a news release from that country stated that a National Wheat Conference was called to see what Brazil could do in encouraging the production of wheat in that country, at least in sufficient quantities to feed her 28 millions of people. At the present time most of the bread flour used in that country are imported from the United States and the Argentine.

Land in the great central west of that country is still very cheap. It needs but capital and human direction to bring it into production. Both of these forces are already at work. American farmers will feel their influence before many years have passed.

Miles Horst

More Readers on Farms in Pennsylvania than Any Other Farm Paper

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Pittsburgh, Pa., May 3, 1930

No. 18

Surplus Milk or Veal?

By E. A. KIRKPATRICK

IS this the time to use a beef bull in the dairy herd, feed the calves all the milk they can use profitably and sell them for veal?

The very mention of such a thing brings a chorus of "No's" from the pedigree worshippers. When the matter is thrown open for discussion, however, it comes out that some dairymen who milk cows for a living, and give more attention to production than to papers, have been making money right along on what is now suggested as an emergency proposition.

One experiment station in the Middle West has recognized this question as a major one needing an answer, and is starting a research project in an attempt to answer the question which, the station observes, is a problem that has to do with stabilizing the production of milk.

The present situation of low prices for milk and butterfat, and high prices for veal, most likely will not prevail when results of research projects indicate just what should be done. The emergency is now—progressive dairymen, who want to take advantage of whatever there is in the practice of raising veal, want to know now. At least a dozen people have asked me about this in the last week.

My cousin, who is a Vermont Yankee, told me nearly two years ago, when milk prices were good, that he had bought an Angus bull to use on some of his Holstein cows. The first two veal calves, which got all their milk from a cow with a bad udder, brought \$92.50 at the farm. The first year's crop of Angus-Holstein calves sold for veal brought more than the cost of the bull and his keep. He has been raising veal, along with production of milk, ever since. "Because it pays" he explains.

Value of Beef Bull

"But is the beef bull essential in veal production?" you ask. Maybe not always essential, but greatly desirable. W. J. Harris, of the Animal Husbandry Department, Kentucky College of Agriculture, offers this bit of testimony on the subject:

"Veal calves sired by good beef bulls will return more than twice as much as calves out of similar cows that are sired by scrub or dairy bulls. Last year two calves were sold from the Experiment Station herd. This sale illustrates the importance of good breeding. Both were from grade dairy cows, and both were the same age. One had been sired by a pure-bred Angus bull and the other by a grade or scrub. The one by the Angus bull sold for \$31.50 and the other one for \$14.75. It would be conservative to say that a good beef bull will add \$10 to the sale value of each veal calf he sires.

"If dairymen or farmers are trying to breed up a herd of dairy cattle they must use high-class dairy bulls, and of course cannot expect to make much money from the sale of calves. However, if they are interested only in milking cows and selling the calves as veal, it will mean money in their pockets if they breed to a beef bull. The farmer or dairyman should decide which system he will follow and then breed accordingly."

Of course Mr. Harris is a beef cattle man. But it is significant that some of the folks close to the dairy situation see the possibilities of veal profits where milk profits are not. George L. Waugh, extension dairyman of the University of New Hampshire, comes out for veal instead of surplus milk. Inasmuch as Mr. Waugh was an economist before he became a dairy extension expert, his say-so has some weight. He says:

"Since the price of surplus milk has been forced down by the low prices of manufactured dairy

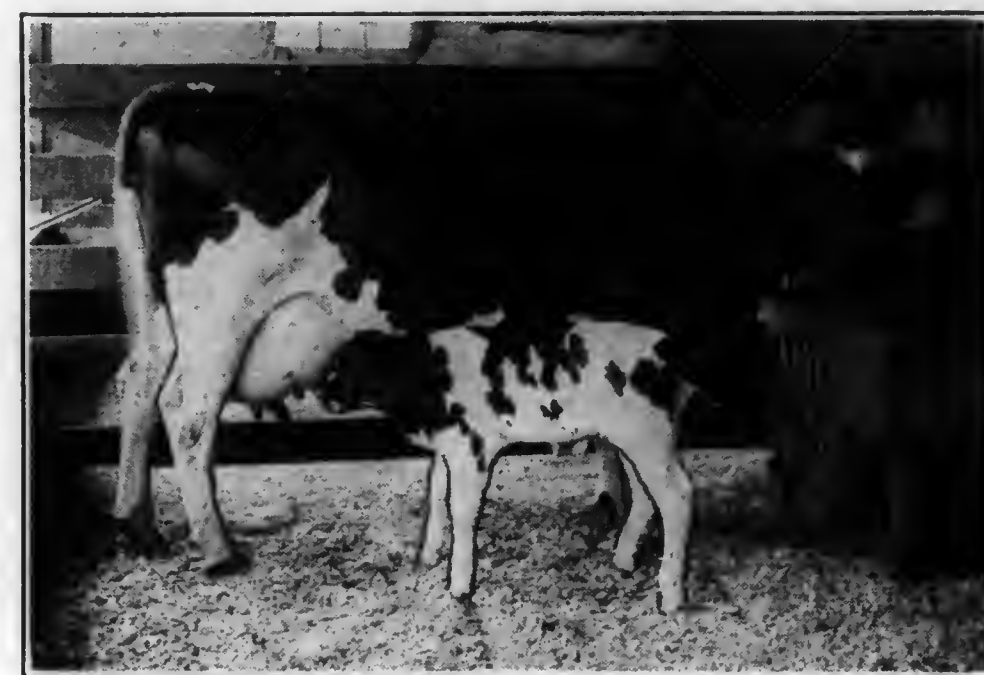
products, many farmers will find it more profitable to use surplus milk for feeding veal calves than to sell as surplus. Whether the surplus is to be put into calves or sent to Boston depends on relative price. As a result of experiments with veal calves at agricultural experiment stations the net value of milk fed to veals may be figured fairly accurately.

"From these experiments it has been concluded that calves which weigh less than 60 pounds at birth offer little chance for profit when milk is selling for \$1.75 a hundredweight. In the trials calves under 60 pounds in weight used an average of 1,000 pounds of milk during the feeding period, requiring a return of 11½ cents a pound for veal to bring a market price equal to the price of surplus milk. Calves which averaged 80 pounds in weight used 700 pounds of milk to attain the 150-pound market weight. On an 11-cent market such calves returned \$2.30 a hundredweight for the milk fed.

"Six to seven weeks is the average time required for feeding veals to get them into market for top prices. Present quotations are about 14 cents for good quality veals."

"How about feeding the beef-dairy calves and selling them for beef?" I have also been asked. Maybe yes, maybe no. Such a plan takes the dairyman into a new field—a field where he isn't so well acquainted. The dairyman knows feeding for milk, but not for beef. Moreover, there is not the opportunity for quick turnover that there is in feeding for veal.

Mind, I do not say there are no profits in such



The high producer used for veal calves had best be milked and calves fed by hand.

a plan. Recently I learned of a dairy farmer in Clark county, South Dakota, who has been milking Holsteins for years. Because he couldn't make anything on the Holstein steers, he put an Angus bull in the herd and produces a carload of the cross-bred steers every year. They sell readily and make a nice profit. They do not compare with beef steers, of course, but far surpass the dairy steer and return a greater profit; in fact, a profit where there was none formerly.

As for the quality of the meat—well, there isn't enough good beef to go around anyway, and the consumer ought to be glad to have some good beef blood in his dairy steer meat. A representative of one of the leading packers told me a year ago: "If it wasn't for dairy cows that are being killed for meat, this country would be starving for beef."

A Saving in Labor

When I visited the Wisconsin Station recently I learned of some work done there with Angus-Holstein steers a year or so ago. In these tests the cross-breds were compared with pure-bred Angus calves and Holstein calves for baby beef—eight steers in each of the three groups.

Of the eight cross-bred carcasses, four were graded choice and four good by a representative of the packing plant where the animals were killed. The pure-breds produced three prime, three choice and two good carcasses; the Holsteins, seven medium and one fair. The cross-breds really made a good showing, the return per steer over cost of feed being \$10.04 excluding hogs, and \$14.13 including pork. The figures for the pure-breds are \$18.84 and \$22.68. The cross-breds brought \$12.50 per cwt. and the pure-breds sold for \$13.25.

The point not to lose sight of in the whole matter, in those herds where none of the calves, or only a few, are raised, is this: Feeding more milk to calves will result in less milk going to market at surplus prices.

If the three-teaters and the low producers that are just a little too good to sell for canners could be used for raising veal calves, there would be more profit on the high milking cows left in the herd producing milk or butterfat for market. A 6,000-pound cow will supply enough milk for two or three calves.

If the veal calves run with the nurse cows, there is also a saving in labor—and labor comes high milking low-producing cows. If the nurse cow is a good milker, milk the cow and feed the calf. But dairymen with such high-producing cows will probably find more profit in milk than in veal. Use the poorest milkers for nurse cows.



A beef bull will put more size and profit into the dairy veals.

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COW KILLS WOMAN

SUNDAY evening of last week Mrs. Clarence Settemyer of Cambria county, Pa., was fatally gored by a cow which she had just finished milking. The report of this tragedy, sent us by Mr. P. A. Esch, states that as Mrs. Settemyer turned to leave the barn after milking the angry cow launched an attack with her ten-inch horns. Cries of the victim's six-year-old son brought neighbors, but too late for a rescue. Bulls are not the only killers of their race; a cow with long sharp horns is a beast of uncertain temperament bearing deadly weapons.

TO PREVENT FRAUD

DRASTIC rules to prevent "plugging" of show cattle are announced by the National Dairy Association. Any one found guilty of unnatural practices in fitting animals for show will be permanently barred from exhibiting at the National Dairy Exposition. This action may seem harsh, but it is none too severe for the dishonest practice. The Association should be warmly supported by the great body of conscientious breeders for recognizing and preventing any such trickery, which in the end must harm the pure-bred industry, as well as the individual who would stoop to win by fraud.

PENNSYLVANIA FIRST

LAST year Keystone hens laid 118,429,000 dozen eggs valued at \$43,081,420. This achievement enables Pennsylvania to retain the position as the foremost poultry state, a rank first revealed by the 1925 federal census which showed that our annual egg production exceeded that of any other state by some \$2,000,000. Since that census the value of the annual egg crop has increased almost \$5,000,000. Nearly twice as many eggs are produced in Pennsylvania as twenty years ago. And even now we consume more eggs than we produce in this state. The egg is a small unit, but its aggregate classes as big business.

WOOL FUTURES?

AT various times in the past the matter of future trading in wool has been suggested and dismissed, due usually to the fact that the diversity of wools makes grading difficult and so fails to assure such a market as a working basis. The wool committee of the New York Cotton Exchange again presents a plan for wool futures which it thinks will

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work. It calls for a contract covering "tops," a form of semi-manufactured wool. Such a market has been successful in Antwerp, while future markets for raw wool have failed in both Antwerp and Le Havre. If the wool trade in this country approves it may be tried here. But judging from the past it is not likely that the wool trade will approve.

HOG FUTURES

LAST week we took a look at the hog futures market at Chicago. Trading has been rather light thus far. The big packers have not participated in it but some small packers are buying. Producers are manifesting more interest than any other class and some have sold the hogs now in their feedlots for later delivery, thus insuring themselves a price and a profit. A sufficient body of speculators to carry the risks which both producers and packers wish to avoid is yet to be developed. Some producers are on the buying side, indicating their confidence in the market and likewise their opinion as to the future supply of hogs in their territory. One of the big benefits of the futures market is yet to be realized. This is the converging of information and opinion as to the future supply, demand and price. There has been no such concentration of information heretofore as this market promises to give us—something highly useful to all concerned in the hog industry.

PROPER PUBLICITY

THE first official information as to the Federal Farm Board's wheat purchases was given last week when Chairman Legge of the Farm Board announced that the Stabilization Corporation owns around 31,000,000 bushels of cash wheat and is long some 19,000,000 bushels of the May future. The figures were about in line with recent trade estimates. The need for publicity concerning the Farm Board's operations was illustrated the same day when an unfounded rumor that the Stabilization Corporation was selling May wheat freely was instrumental in depressing the market around 2½ cents a bushel. The Board will accomplish more toward stabilization by regular public statement of its operations than by keeping them secret, and Mr. Legge is to be commended for the first move in that direction.

MARKET MACHINERY

THAT competent statistician Nat C. Murray shows that farmers get higher prices for grain when trading in futures is heavy than when such trading is light, concluding that "the process of trading in futures is not antagonistic to the interests of farmers." That is a very mild statement, for he can show that this trading is of positive advantage to producers in economy of marketing and distribution. The public is learning the truth about it, for within a few months several producers have commended us for presenting it. One of these men advocates a futures market for potatoes, while another believes that livestock producers will be helped by such a market for hogs.

WHEN CORN IS MARKETING

MUCH of the criticism of the present system of grain marketing is based on the assumption that farmers sell their grain soon after harvest, when the price is low, and that the "speculator" or some other scheming person reaps an undeserved profit by selling the grain later when the price is high. Disregarding the inference that the price is always low immediately after harvest and high later in the crop year, an inference that facts do not support, let us give some figures presented by the Iowa Experiment Station after a survey of the marketing practice of corn

growers in that state. In the eastern-central meat area of the state farmers sell 40 per cent of their corn in the winter half of the year and carry 60 per cent over for summer prices. In the cash grain area corn sales are distributed 50-50 between summer and winter halves of the year. In the western meat area 60 per cent of the cash corn is sold by farmers in the winter half of the year and 40 per cent in the summer half. These percentages do not indicate any rude hurry on the part of corn growers to get rid of their crop regardless of price or future prospects.

A HOG PRODUCTION BASIS

THIS is an age of materialism and arithmetic. We weigh our potatoes and measure our apples; we test our seed and feed our soil. We demand a strict accounting from our cows and our hens and welcome any scheme or device that will enable us to substitute facts for guesswork, eliminate estimates or promote efficiency. The wisdom of such procedure is pretty well recognized. Butterfat tests have helped the dairyman and egg-production records are useful to the poultry breeder. Recent feeding trials have suggested the possibility of applying the production test to hogs. The Department of Agriculture reports that the record of performance test, in which the inherent tendency of a pig to gain is measured, is a "specific method of determining the ability of a brood sow to produce pigs that will make economical gains." A recognized measure of this sort would be of value to the breeder, who might no longer choose his brood sows for beauty of form or disposition, but according to the figures on a chart.

INEVITABLE RESULTS

THE inevitable result of centralized buying is centralized selling. The marketing of milk is a familiar example of this. When mergers of distributors centralized the buying of milk organizations of producers were necessary to centralize selling. Likewise the inevitable result of centralized selling is centralized buying. When Canadian wheat went largely into the hands of one organization which held it for a high price, and when our country's legislation was expected to create a similar condition, British millers and back-yard gardeners who were thinking of experimenting this spring for the first time with mulch planting may be interested in a bulletin on "Paper Mulch for the Vegetable Garden" just issued by the Ohio Experiment Station at Wooster. Last year they compared the growth of spinach, lettuce, cabbage, cauliflower, beets, carrots, rutabagas, peas, green pod beans, wax beans, bush Lima beans, celery, onions, potatoes, sweet corn, cucumbers, sweet peppers and tomatoes in mulched and in cultivated areas. Twenty-eight of the thirty-one crops produced as large or larger total yield from the black paper mulched area as from the cultivated area. In all cases paper mulch gave effective weed control, a thing that appeals to all gardeners.

IN THE WRONG CENTURY

WE have received so many inquiries of such a variety of subjects that we do not believe anything in that line could astonish us. But here is one that does astonish, for it belongs to the Dark Ages rather than to this enlightened century. The inquirer says that one of his neighbors who has inherited a book on witchcraft, brought from an old country long ago, is now practicing the black art in that community. We are asked to give the name of somebody who can "stop that kind of work." We can do it. Anybody who refuses to believe in witchcraft can hog-tie, buck-and-gag and lay in the fence corner any sort of witchcraft or black art, domestic or imported. This answer will not please the inquirer because it is too easy, costs nothing, and is absolutely correct, whereas he wants to pay somebody for something very tedious, spectacular and false.

May 13, 1930

PENNSYLVANIA FARMER

(633) 7

New Jersey Farm Comment

By G. W. HARRIS

COMMISSION merchants, dealers and brokers buying or negotiating the sale of perishable agricultural products in New Jersey are required by an act passed by the New Jersey Legislature just prior to adjournment to be licensed to do business in the state, together with surety bond of \$3,000 minimum. This act was approved by Governor Larson on April 14 and becomes effective July 1 of this year.

This bill, which was sponsored by the Gloucester County Board of Agriculture through the New Jersey State Federation, proposes to protect New Jersey growers against those buyers with whom growers have had unsatisfactory dealings in the past and insure payment of such moneys as may be due them in the future. This law does not apply to any transaction in which the grower receives payment in full payment of the amount at the time of the transaction or to any transaction involving less than \$25, or to any duly incorporated agricultural cooperative association.

The act defines "commission merchant" to mean any person engaged in the business of receiving any perishable agricultural commodity for sale on commission or in behalf of the grower. The term "dealer" means any person engaged in the business of buying any perishable agricultural commodity from the grower for the purpose of shipping, for sale, for resale or manufacture. A "broker" is defined as any person engaged in the business of negotiating sales of any perishable agricultural commodity on behalf of the grower.

This new law not only affects those growers whose place of business is in New Jersey, but applies to all buyers who come into the state to transact purchases.

Application for license to do business in the state with a bond must be filed with the Secretary of Agriculture in Trenton by June 1. The license fee is \$2 and must be renewed annually. Failure to do this will subject a person to a fine of not less than \$100 nor more than \$500.

The legislature in passing this act intended to provide funds for its enforcement. Greatest financial support will be needed during this first year while the new law is being introduced if it is to be effectively enforced, and the legislative body should have provided ample funds for its enforcement. Doubtless, like nearly all new laws, it may not prove exactly perfect in all details and experience may show the need for some changes.

NEW JERSEY vegetable growers and back-yard gardeners who are thinking of experimenting this spring for the first time with mulch planting may be interested in a bulletin on "Paper Mulch for the Vegetable Garden" just issued by the Ohio Experiment Station at Wooster.

Last year they compared the growth of spinach, lettuce, cabbage, cauliflower, beets, carrots, rutabagas, peas, green pod beans, wax beans, bush Lima beans, celery, onions, potatoes, sweet corn, cucumbers, sweet peppers and tomatoes in mulched and in cultivated areas. Twenty-eight of the thirty-one crops produced as large or larger total yield from the black paper mulched area as from the cultivated area. In all cases paper mulch gave effective weed control, a thing that appeals to all gardeners.

This experience in 1928 with the use of six different types of paper for the growing of thirty-one vegetable crops leads them to recommend it for trial in a limited way until the grower becomes familiar with its usefulness under his growing conditions.

NEW daughters whose production was an 11 per cent increase over the production of their dams at comparable ages is credited to the senior Holstein herd sire, Sir Colantha Barbara Hero, owned by the New Jersey Agricultural College. The yearly average production of his first ten daughters to make yearly official records is 13,500 pounds of milk, while the first five daughters averaged 15,000 pounds of milk.

This sire which is now over eight years of age was secured from the U. S. Government Dairy Farm at Beltsville, Md.

HUNTERDON county poultrymen will not only show birds at the Flemington Fair this year, but they will display carefully selected eggs as well. An egg show has been added to the agricultural exhibit. This will consist of two classes,

one being open to all producers of eggs in Hunterdon county, and the other class will be open to members of boys' and girls' poultry clubs and to vocational agricultural students. These classes will be subdivided into white and brown egg classes with each entry consisting of one dozen eggs.

Egg shows are always of interest to owners of flocks because the small producer has an almost equal opportunity with the large commercial poultrymen in selecting a prize-winning dozen eggs for showing.

LAST week the first two truckloads of strawberries from North Carolina this season arrived in the Dock Street market in Philadelphia. Shipments of perishable fruits and vegetables are taking to the highways and the number of packages carried by truck in many instances nearly equals those shipped in a car by express. The first



A Fellow to Steer Clear of

truck to arrive with strawberries carried 200 crates containing 32 quarts of berries to each case. This is only about 25 crates less than in an express shipment. Prices received were about equal to express shipments, bringing \$7 to \$7.50 per crate for the best, while the trucking charges were less than express rates.

On Thursday of the preceding week two truckloads of asparagus from South Carolina arrived at that market. This is the first truck shipment of perishables recorded in the Philadelphia market from a point of origin so far south. The trip of 675 miles was made in 31 hours and the growers saved 16 to 17 cents per crate of a dozen bunches as compared with express charges. This asparagus seemed to arrive in excellent condition, as it sold at the same price range as express receipts.

THE Maryland Guernsey Association and Eastern Shore breeders have set the date for the annual Guernsey Field Day for the Eastern Shore of Maryland for May 30. This year the show will be held at the Wicomico Fair Grounds near Salisbury where it is expected that over 100 head of cattle from leading herds of nine counties will be shown.

Nearly 1,000 people attended last year's field day at Centerville and a larger attendance is anticipated this year at Salisbury. The day following the show, on May 31, a group of breeders plan to visit several of the leading Guernsey herds on the Shore.

SHIPPING of perishables by truck has replaced a large volume of express business and distant truck shipments at lower than express charges are becoming more and more common. At the present time independent truckers who have built up a large volume of business on the Eastern Shore are

fighting to retain it. The Peninsula Auto Express and Baltimore Transfer Company, claimed to be subsidiaries of the Pennsylvania Railroad, have applied for a franchise to operate an extensive motor freight and express system in that territory and the independent truckers are protesting such action.

LESS than six months remain before the opening of New Jersey's egg-laying contests on next October 1, says John W. Goodman, superintendent, New Jersey egg-laying contests. The pullets to be entered in these competitions should, as a rule, be selected from April or early May hatches. Contest records indicate that the best birds to enter are those coming into production shortly before or shortly after the start of the egg-laying contest year. Pullets that have been producing for a month or so before the contest begins are less desirable because the change to the new environment frequently causes them to quit laying. Late-maturing pullets are likewise undesirable for contest pens because they lose valuable time before beginning to lay.

Heavy breeds take from five and one-half to six months to mature and they should therefore be selected from early to middle of April hatches. The Leghorns, which generally lay at about five months of age, may be selected from late April to early May hatches. There may be some variation from the foregoing, depending on the strain of birds and the management methods.

Pullets entered in egg-laying contests cannot be expected to make good records unless they are given a good start in life and reared under favorable conditions. Frequently, mortality in contest flocks can be traced to ailments of the young stock. Symptoms of coccidiosis, worms and other troubles of adult fowls, as well as a general weakened condition are, as a rule, indications of disease or mismanagement in early life.

Poultrymen who wish to rear healthy pullets capable of laying heavily can do no better than to participate in the "Wage War on Worms and Disease Campaign" which is being conducted by the extension service. The recommendations of this project point the way to growing healthy and vigorous flocks, from which the contest pens may be selected. Poultrymen desirous of rearing their birds in accordance with the recommendations of this campaign should apply to their local county agricultural agents for additional information.

A COW'S diet has a direct influence upon the quantity and quality of the milk she produces. Cows that have been confined all winter and fed dry roughage and dry grain concentrates when turned out on good pasture respond with an increased flow of milk that has a higher nutritive value.

Milk produced on summer pastures is three times as potent in its vitamin C (antiscorbutic) properties as milk from cows fed dry feeds, according to R. G. Connelly, New Jersey associate extension dairyman.

Some of the other nutritive qualities of milk also are improved when cows are turned out on fresh pasture. The young grasses are succulent in nature and rich in highly digestible proteins, minerals and vitamins. These stimulate production, improve the mineral as well as the vitamin content of the milk and otherwise impart to it nourishing and health building qualities.

"THE potato grower who does not spray this year is taking a chance which he can ill afford."

This is the warning of Dr. W. H. Martin, plant pathologist for the New Jersey Agricultural Experiment Station, who points out that the acreage of potatoes in southern states is "well in excess of last year."

"In view of this situation," Mr. Martin says, "we must obtain maximum yields to the acre this season. The thorough spraying with Bordeaux mixture is one of the greatest aids to producing bumper crops of potatoes. The first application should be made when the plants are 4 to 6 inches high, and subsequent applications should follow at 7-day to 10-day intervals. Apply the spray at the rate of at least 100 gallons to the acre, and adjust the nozzles to cover thoroughly each plant with a film of spray material."



This farmer finds one of the newer outfits a time and trouble saver in cultivating checked corn.

PROMISES of "\$3 for \$1" is not an advertisement for some kind of a security-selling scheme; it is a claim made on the basis of the experiences and observations of 2,053 corn growers in Pennsylvania, Maryland, New Jersey, Delaware and West Virginia.

The use of fertilizer increases corn yields on an average of 12.8 bushels per acre as judged by the yield estimates of more than 1,000 corn growers in Pennsylvania. The average increases expected in the other states are: Maryland, 11.9 bushels; Delaware, 11.8 bushels; New Jersey, 26.2 bushels; and West Virginia, 17.7 bushels. These data were obtained in a survey made by The National Fertilizer Association in which 5,796 farmers in these five states were personally interviewed regarding their experiences and observations in the use of commercial fertilizer. Of this number, 4,995 gave corn as one of their crops.

The average estimated increases of from 11.8 to 26.2 bushels amount to gains of from 30 per cent in Delaware, to 70 per cent in New Jersey, over the yields expected by those same growers without fertilizer. At average corn prices, each dollar invested in fertilizer, according to these farmers, returns yield increases worth approximately \$3.50 in Pennsylvania, \$2.50 in Delaware, \$2.25 in Maryland, \$5.50 in West Virginia and \$3.25 in New Jersey.

In growing corn, the yield, while very important, is not all. What about quality? One of the questions asked in this survey was, "Have you noticed any effects of fertilizer on the market quality and feeding quality of your crops?" While this question was asked for crops in general, the answers given can be said to apply as fully to corn as to wheat and other fertilized crops in this region. More than 4,100 of those interviewed stated they had observed that fertilizer improves market quality; nearly 3,500 stated that fertilizer also improves the feeding quality of crops.

How Quality Counts

Improvement in quality affects the value of the entire yield of a crop, and not merely the increased bushels. For example, a yield of 35 bushels of 80-cent corn is worth \$28; a yield of 50 bushels of 85-cent corn (allowing five cents per bushel for better quality) is worth \$42.50, or \$14.50 more than the corn of lower yield and market quality. Of this amount, \$2.50 may be credited to improved quality.

Closely associated with yield and quality of crops is the matter of time of maturity. With corn and

Food for the Corn Crop

By H. W. WARNER

other late-harvested crops, early and even ripening is very much to be desired. That fertilizer hastens maturity is rather generally accepted but additional evidence is always in order. Nearly 4,800 of the 5,796 farmers who answered this question reported that fertilizer hastens crop maturity. The value of this effect alone in seasons like 1924 and 1927 may be worth much more than the cost of the fertilizer.

A quick start of the young corn plant helps in several ways. It makes it possible to cultivate a few days sooner than might otherwise be done and thus get ahead of the weeds; it is especially valuable in cold, backward seasons and for late-planted fields. According to the hundreds of farmers who answered the question, commercial fertilizer gives crops this much-desired quick start. In fact, 5,211 of the 5,796 farmers interviewed—nearly 90 per cent—stated they had observed this effect.

A point deserving special mention is that 2,316 farmers reported having observed that fertilizer increases crop resistance to disease, bushels, in West Virginia.

In Pennsylvania, about 60 per cent of the corn acreage now receives commercial fertilizer; in New Jersey, about 70 per cent is fertilized. In Delaware, Maryland and West Virginia much less than half of the corn acreage is so treated. The experiences of farmers, the records of farm tests and results from official experiments show for practically all eastern soils that additional plant food will pay.

Machinery Plays Its Part

MODERN machinery not only makes possible more rapid handling of operations common a few years ago, but also permits adoption of methods not heretofore practical or possible. In the East where corn ground is nearly always plowed

before planting, farmers find two, three and four row tractor plows a great aid in taking advantage of a few good days of plowing weather. Although the tractor is a relatively new machine we have heard of it for four or five years. It is now being used by many farmers who prepare sandy or friable soil with the one-disk, and by using disk-barrow or field cultivator before planting are able to secure good results.

A great many acres of corn will be planted by tractor planters this spring. Use of the rotary hoe is becoming more common, as farmers have found that using it they can keep practically weeds out of the row. Indications certainly point to change in planting lists in the West. Two, three and four-row lists are going to make history for those men who use them. Where the ground has been worked before, all-purpose tractors can pull the two and three-row outfits more easily, and planting will be speeded up.

A program which has been followed by several farmers in Illinois and Iowa may bring out new ideas although it is not one which would necessarily suit all conditions. The corn is harrowed several days after planting, just as soon as a few small weeds have started. This smooths out the planter tracks and also serves as a cultivation. Some men have used a device which attaches to the planter and ridge out over the row. This prevents washing in of rain, and the initial harrowing can be deferred a few days longer.

Use of Harrow

The corn is harrowed several days after planting, just as soon as a few small weeds have started. This smooths out the planter tracks and also serves as a cultivation. Some men have used a device which attaches to the planter and ridge out over the row. This prevents washing in of rain, and the initial harrowing can be deferred a few days longer.

Then the rotary hoe is used either once or twice before the corn is six or eight inches high. The number of weeds, soil and weather conditions, amount of acreage would determine whether the hoe was used twice, or only once.

Using the cultivator after the initial hoeing favored by a number of men. They can make good time as the corn is then sufficiently large to get out of danger from covering. Of course, the number of acres one man can handle has been largely by use of three and four-row cultivators.

One farmer suggests that a small ridge be kept along each side of the corn rows. Then when the rotary hoe is used it will tear into this soft ridge and destroy seedling weeds which have started. The corn will be about twelve inches high when it is gone over the second time with the hoe. If procedure we have been discussing is followed.

The next cultivation will have to be with the shovel cultivator and will probably be the last. Tudor Charles Jr.



Results of "no treatment." Both pictures were taken in Bradford county, Pa., where fertilizer tests were made by the state Experiment Station.



This corn field shows the effect of lime and a complete fertilizer.

Milly Woodbridge's Trek to the Pacific

The Pioneers of the Peace River Valley

By C. A. Stephens

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SYNOPSIS

Two New England families, who have gone to the Peace River country in Canada to make homes, find themselves in unfortunate circumstances when the railroad, on which they have based their hopes, is not built near where they have settled. One of the families, the Mastermans, moves away, but the other, the Woodbridges, remains in the valley hoping that something will happen to create business for the sawmill they have built. The son and daughter arrive following the Mastermans' example and go back to civilization while they still have enough money to make the journey, but the father refuses to leave his mill. At last, when it becomes evident that they could not live through another winter on the Peace river, and after their money had been spent, they started to walk across the thousand miles of wilderness and mountains that stretched between them and the Pacific Coast.

might have been the part of wisdom, but they did not do it, and Barty followed on after them that day, begging as often as he caught up.

A thunder storm occurred during the afternoon and they camped early in order to dry their clothes and their outfit. The place chosen was beside several large rocks close on the river; and by Milly's advice, Winthrop cut a number of large poplar poles and fenced in the rearward portion of their camp, to keep Barty outside it. While Milly prepared their evening meal, Woodbridge, senior, led out the horse and the Jersey to graze at open places along the river bank and Winthrop fished with some little success in a pool at the foot of a rapid turn of the stream just above their camp.

Later they tied up Bright-eyes and the old horse inside the fence to prevent Barty from annoying them. Throughout the evening, however, the latter stood by the fence and begged, his extensive appetite not much appeased by the fish Winthrop tossed to him. The kind of fish they took from the river here were not trout, but wall-eyed pike, some of which were of five pounds weight.

The night passed without incident; and after this manner they went on for four or five days, following the Peace through hilly country, much of it

lowing the Peace through hilly country, much of it it broke where fires had formerly burned the forest. Far to the west they could see high mountains, some of the peaks capped with snow. The thought that these would have to be passed filled the elder Woodbridge with a dread that was well-nigh despair. His was far from being the courage of Hannibal. "Beyond those summits of great pain" there lay no "Italy" for him.

Every night they chose a place for camping that could easily be fenced about to protect their stock and tent—a wise precaution on Milly's part, although Winthrop sometimes grumbled over the extra labor with the ax. Barty still followed them, greedily bolting whatever they had to throw to him. One night an elk, or else a moose, came trotting rapidly along the path by the river and actually stepped astride their fence before it perceived the horse and the tent. Suddenly aware of something unusual, it bounded away with a loud, shrill snort.

On another night, the eleventh, I think, after leaving Hudson's Hope, they were awakened by loud, angry growls from Barty. The dim "old" moon now gave but little light; yet as nearly as they could make out, another bear had approached, attracted, perhaps, by the odor of fish. Barty appeared to resent the presence of his congener. The growling on both sides was terrific. Winthrop took his gun to interfere, but while he was trying to catch sight of the obstreperous newcomer, both bears went off at a great pace. Barty was chasing the interloper, they thought, though how he managed to do so was not easily understood. Away they went, however, crashing through underbrush till they appeared to be fully a mile away, when an even louder uproar ensued for some time. The outcries indicated that more than two bears were now involved in the melee. The silent, dim wilderness resounded to the uproar. Prehistoric dinosaurs in savage conflict could hardly have raised a more awesome rumpus. Yells as of extreme pain presently succeeded to the growls and roars of ferocity, and ere long the combatants appeared—from the sounds—to be racing off to a greater and greater distance, till finally the noise of their contention died away in the far forest.

Milly and Winthrop had stood listening with mingled feelings of solicitude and alarm. "Do you suppose poor Barty will ever come back?" the former exclaimed. "Oh, he will be back, if they haven't killed him," Winthrop replied. "Nothing less will keep him away from us."

But Barty had not returned when they went on next morning. "I'm afraid those other bears have mauled and mangled him till he has crawled away somewhere to languish and die," Milly said ruefully.

"More likely he is merely lying up to recuperate," was Winthrop's opinion. "I wager we shall see him again within two days, hungry as ever."

"I SUPPOSE it is useless to try to look him up," Milly remarked a little later, as they took their way along the trail to the westward. She, too, believed that Barty would probably overtake them. In point of fact, however, they never saw him again; and Freeman Woodbridge considered this a very good riddance from a troublesome camp-follower.

As they continued on toward the mountains of the central range of the Rockies, the hills encroached more upon the river valley, rendering the trail along the north bank difficult to follow. At times they were near losing it altogether in the thick spruce woods, and were delayed picking it up. Often there were windfalls across it which Winthrop had to cut away before the old horse and Bright-eyes could go on. Some days they made no more than three or four miles. In short they had far greater difficulties of this kind than we have space to recount; but there was no danger of becoming lost as long as they kept within sight or hearing of the river.

Two days after the unquiet night when Barty disappeared, they met wayfarers on the trail in the form of four Indians, probably of the Beaver tribe. Winthrop was ahead at the time, cutting away a windfall, when hearing a low exclamation, he looked around and saw a squaw with a gun and a pack a few steps away, regarding him with a startled expression. Behind her came another squaw bent half double in the path, carrying on her back the only man of the party, who appeared to be taking matters easy. In the rear came still another squaw heavily loaded with their entire outfit, including a brown, sharp-eyed infant that peered fearfully over her shoulder.

(To be continued.)



The Cheerful Plowman

TROUBLES THAT NEVER COME

WHEN I am out with Nig at night I find the season's full of fright. He shies, and starts, and snorts, he enters to the right and left, of common sense he is bereft; he jumps, and jerks, and starts.

"What is the rip with you?" I say, "You're safe as in the light of day, there are no dangers there. That whited thing is but a birch, so why throw up your head and lurch, a shame upon your scare! Hucks, that dim sound is but the wind, you act like one whose heart had sinned against the very fates, there are no dangers in the trees, or in the cool nocturnal breeze, no murder in the gates. Cut out the monkey shins, old top, cut out the nervous skip and hop, and be a horse of grit. Why act the baby in the night, you who by day are brave and bright, be calm and use your wit."

Yes, thus I lecture skittish Nig in phrases round, and strong, and big, in moral tones and clear; I lecture him like one, by gee, who never had a trembling knee, like one who knew no fear. But listen, just a while ago I faced six notes all in a row, all coming due at once, and sixteen pigs all died that day, while three fat gobbles ran away and left me only runts. The bank in which I had six hucks broke up like brittle peanut shucks, and hail fell in my oats, the mumps appeared among my geese, cried I, "Will terrors never cease? How can I meet those notes?"

"The night is dark," I cried, "ah, the gobbles will not let me pines, they have me by the neck; the spooks are dancing on my chest, they give me neither peace nor rest. I am a total wreck! What next? Ah, look! The sheriff comes right through the night to grab my thumbs and lead me off to jail. I am afraid, where shall I turn, my very eyelids smart and burn, I fear the dark. I fail!"

How silly! Daylight came again, I held my place among the men, I had no spooks in fear. So, dear Old Nig, forget the ghosts, they are but trees, they are but posts; you're far too much like me, J. E. T.

PENNSYLVANIA FARMER

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COW KILLS WOMAN

SUNDAY evening of last week Mrs. Clarence Settemyer of Cambria county, Pa., was fatally gored by a cow which she had just finished milking. The report of this tragedy, sent us by Mr. P. A. E. Ech, states that as Mrs. Settemyer turned to leave the barn after milking the angry cow launched an attack with her ten-inch horns. Cries of the victim's six-year-old son brought neighbors, but too late for a rescue. Bulls are not the only killers of their race; a cow with long sharp horns is a beast of uncertain temperament bearing deadly weapons.

TO PREVENT FRAUD

DRASTIC rules to prevent "plugging" of show cattle are announced by the National Dairy Association. Any one found guilty of unnatural practices in fitting animals for show will be permanently barred from exhibiting at the National Dairy Exposition. This action may seem harsh, but it is none too severe for the dishonest practice. The Association should be warmly supported by the great body of conscientious breeders for recognizing and preventing any such trickery, which in the end must harm the pure-bred industry, as well as the individual who would stoop to win by fraud.

PENNSYLVANIA FIRST

LAST year Keystone hens laid 118,429,000 dozen eggs valued at \$43,081,420. This achievement enables Pennsylvania to retain the position as the foremost poultry state, a rank first revealed by the 1925 federal census which showed that our annual egg production exceeded that of any other state by some \$2,000,000. Since that census the value of the annual egg crop has increased almost \$5,000,000. Nearly twice as many eggs are produced in Pennsylvania as twenty years ago. And even now we consume more eggs than we produce in this state. The egg is a small unit, but its aggregate classes as big business.

WOOL FUTURES?

AT various times in the past the matter of future trading in wool has been suggested and dismissed, due usually to the fact that the diversity of wools makes grading difficult and so fails to assure such a market a working basis. The wool committee of the New York Cotton Exchange again presents a plan for wool futures which it thinks will

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work. It calls for a contract covering "tops," a form of semi-manufactured wool. Such a market has been successful in Antwerp, while untimely markets for raw wool have failed in both Antwerp and Le Havre. If the wool trade in this country approves it may be tried here. But judging from the past it is not likely that the wool trade will approve.

HOG FUTURES

LAST week we took a look at the hog futures market at Chicago. Trading has been rather light thus far. The big packers have not participated in it but some small packers are buying. Producers are manifesting more interest than any other class and some have sold the hogs now in their feedlots for later delivery, thus insuring themselves a price and a profit. A sufficient body of speculators to carry the risks which both producers and packers wish to avoid is yet to be developed. Some producers are on the buying side, indicating their confidence in the market and likewise their opinion as to the future supply of hogs in their territory. One of the big benefits of the futures market is yet to be realized. This is the converging of information and opinion as to the future supply, demand and price. There has been no such concentration of information heretofore as this market promises to give us—something highly useful to all concerned in the hog industry.

PROPER PUBLICITY

THE first official information as to the Federal Farm Board's wheat purchases was given last week when Chairman Legge of the Farm Board announced that the Stabilization Corporation owns around 31,000,000 bushels of cash wheat and is long some 19,000,000 bushels of the May future. The figures were about in line with recent trade estimates. The need for publicity concerning the Farm Board's operations was illustrated the same day when an unfounded rumor that the Stabilization Corporation was selling May wheat freely was instrumental in depressing the market around 2½ cents a bushel. The Board will accomplish more toward stabilization by regular public statement of its operations than by keeping them secret, and Mr. Legge is to be commended for the first move in that direction.

MARKET MACHINERY

THAT competent statistician Nat C. Murray shows that farmers get higher prices for grain when trading in futures is heavy than when such trading is light, concluding that "the process of trading in futures is not antagonistic to the interests of farmers." That is a very mild statement, for he can show that this trading is of positive advantage to producers in economy of marketing and distribution. The public is learning the truth about it, for within a few months several producers have commended us for presenting it. One of these men advocates a futures market for potatoes, while another believes that livestock producers will be helped by such a market for hogs.

WHEN CORN IS MARKETED

MUCH of the criticism of the present system of grain marketing is based on the assumption that farmers sell their grain soon after harvest, when the price is low, and that the "speculator" or some other scheming person reaps an undeserved profit by selling the grain later when the price is high. Disregarding the inference that the price is always low immediately after harvest and high later in the crop year, an inference that facts do not support, let us give some figures presented by the Iowa Experiment Station after a survey of the marketing practice of corn

growers in that state. In the eastern-central meat area of the state farmers sell 40 per cent of their corn in the winter half of the year and carry 60 per cent over for summer prices. In the cash grain area corn sales are distributed 50-50 between summer and winter halves of the year. In the western meat area 60 per cent of the cash corn is sold by farmers in the winter half of the year and 40 per cent in the summer half. These percentages do not indicate any rude hurry on the part of corn growers to get rid of their crop regardless of price or future prospects.

A HOG PRODUCTION BASIS

THIS is an age of materialism and arithmetic. We weigh our potatoes and measure our apples; we test our seed and feed our soil. We demand a strict accounting from our cows and our hens and welcome any scheme or device that will enable us to substitute facts for guesswork, eliminate estimates or promote efficiency. The wisdom of such procedure is pretty well recognized. Butterfat tests have helped the dairyman and egg-production records are useful to the poultry breeder. Recent feeding trials have suggested the possibility of applying the production test to hogs. The Department of Agriculture reports that the record of performance test, in which the inherent tendency of a pig to gain is measured, is a "specific method of determining the ability of a brood sow to produce pigs that will make economical gains." A recognized measure of the sort would be of value to the breeder, who might no longer choose his brood sows in beauty of form or disposition, but according to the figures on a chart.

INEVITABLE RESULTS

THE inevitable result of centralized buying is centralized selling. The marketing of milk is a familiar example of this. When mergers of distributors centralized the buying of milk organizations of producers were necessary to centralize selling. Likewise the inevitable result of centralized selling is centralized buying. When Canadian wheat went largely into the hands of one organization which held it for a high price, and when our country's legislation was expected to create a similar condition, British millers interests resorted to centralized buying. Now there is a movement in Britain to centralize wheat buying still further under a government agency. Centralization may be the most economical way in either buying or selling, and if so it will survive by virtue of that fact, but let us not expect that it will yield greater and permanent advantages by means of price control or "bargaining power," for in due time one centralization will always be met and matched by another.

IN THE WRONG CENTURY

WE have received so many inquiries of such a variety of subjects that we do not believe anything in that line could astonish us. But here is one that does astonish. It belongs to the Dark Ages rather than to this enlightened century. The inquirer states that one of his neighbors who has inherited a book on witchcraft, brought from an old country long ago, is now practicing the black art in that community. We are asked to give the name of somebody who can "stop the kind of work." We can do it. Anybody who refuses to believe in witchcraft can hog-buck-and-gag and lay in the fence corner sort of witchcraft or black art, domestic imported. This answer will not please the inquirer because it is too easy, costs nothing and is absolutely correct, whereas he wants to pay somebody for something mysterious, spectacular and false.

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(633) 7

New Jersey Farm Comment

By G. W. HARRIS

COMMISSION merchants, dealers and brokers buying or negotiating the sale of perishable agricultural products in New Jersey are required by an act passed by the New Jersey Legislature just prior to adjournment to be licensed as business in the state, together with surety bond of \$500 minimum. This act was approved by Governor Larson on April 14 and becomes effective July 1 of this year.

This bill, which was sponsored by the Gloucester County Board of Agriculture through the New Jersey State Federation, proposes to protect New Jersey growers against those buyers with whom they have had unsatisfactory dealings in the past and insure payment of such moneys as may be due them in the future. This law does not apply any transaction in which the grower receives cash in full payment of the amount at the time the transaction or to any transaction involving more than \$25, or to any duly incorporated agricultural cooperative association.

The act defines "commission merchant" to mean any person engaged in the business of receiving or disposing of perishable agricultural commodity for sale on commission or in behalf of the grower. The term "dealer" means any person engaged in the business of buying any perishable agricultural commodity from the grower for the purpose of shipping, for sale, for resale or manufacture. A "broker" is defined as any person engaged in the business of negotiating sales of any perishable agricultural commodity on behalf of the grower.

This new law not only affects those persons whose place of business is in New Jersey, but applies to all buyers who come into the state to transact purchases.

Application for license to do business in the state with a bond must be filed with the Secretary of Agriculture in Trenton by June 1. The license fee is \$2 and must be renewed annually. Failure to do this will subject a person to a fine of not less than \$10 nor more than \$500.

The legislature in passing this act intended to provide funds for its enforcement. Greatest financial support will be needed during this first year while the new law is being introduced if it is to be effectively enforced, and the legislative body should have provided ample funds for its enforcement. Doubtless, like nearly all new laws, it may not prove exactly perfect in details and experience may show need for some changes.

NEW JERSEY vegetable growers and back-yard gardeners who are thinking of experimenting this year for the first time with mulching may be interested in a bulletin on "Paper Mulch for the Vegetable Garden" just issued by the Ohio Experiment Station at Wooster.

Last year they compared the growth of spinach, lettuce, cabbage, cauliflower, beets, carrots, rutabagas, peas, green pod beans, wax beans, bush Lima beans, celery, onions, potatoes, sweet corn, cucumbers, sweet peppers and tomatoes in mulched and in cultivated areas. Twenty-five of the thirty-one crops produced as large or larger total yield from the black paper mulched areas as from the cultivated area. In all cases paper mulch gave effective weed control, a thing that is a boon to all gardeners.

This experience in 1928 with the use of six different types of paper for the growing of thirty-one vegetable crops leads them to recommend it for use in a limited way until the grower becomes familiar with its usefulness under his growing conditions.

NEW daughters whose production was an 11 per cent increase over the production of the senior sire, Sir Colantha Barbara Hero, bred by the New Jersey Agricultural College, the yearly average production of his first ten daughters to make yearly official records is 13,500 pounds of milk, while the first five daughters averaged 15,000 pounds of milk.

This sire which is now over eight years of age was secured from the U. S. Government Dairy Farm at Beltsville, Md.

one being open to all producers of eggs in Hunterdon county, and the other class will be open to members of boys' and girls' poultry clubs and to vocational agricultural students. These classes will be subdivided into white and brown egg classes with each entry consisting of one dozen eggs.

Egg shows are always of interest to owners of flocks because the small producer has an almost equal opportunity with the large commercial poultrymen in selecting a prize-winning dozen eggs for showing.

LAST week the first two truckloads of strawberries from North Carolina this season arrived in the Dock Street market in Philadelphia. Shipments of perishable fruits and vegetables are taking to the highways and the number of packages carried by truck in many instances nearly equals those shipped in a car by express. The first



A Fellow to Steer Clear of

truck to arrive with strawberries carried 200 crates containing 32 quarts of berries to each case. This is only about 25 cents less than in an express shipment. Prices received were about equal to express shipments, bringing \$7 to \$7.50 per crate for the best, while the trucking charges were less than express rates.

On Thursday of the preceding week two truckloads of asparagus from South Carolina arrived at that market. This is the first truck shipment of perishables recorded in the Philadelphia market from a point of origin so far south. The trip of 675 miles was made in 31 hours and the growers saved 16 to 17 cents per crate of a dozen bunches as compared with express charges. This asparagus seemed to arrive in excellent condition, as it sold at the same price range as express receipts.

THE Maryland Guernsey Association and Eastern Shore breeders have set the date for the annual Guernsey Field Day for the Eastern Shore of Maryland for May 30. This year the show will be held at the Wicomico Fair Grounds near Salisbury where it is expected that over 100 head of cattle from leading herds of nine counties will be shown.

Nearly 1,000 people attended last year's field day at Centerville and a larger attendance is anticipated this year at Salisbury. The day following the show, on May 31, a group of breeders plan to visit several of the leading Guernsey herds on the Shore.

SHIPPING of perishables by truck has replaced a large volume of express business and distant truck shipments at lower than express charges are becoming more and more common. At the present time independent truckers who have built up a large volume of business on the Eastern Shore are

fighting to retain it. The Peninsula Auto Express and Baltimore Transfer Company, claimed to be subsidiaries of the Pennsylvania Railroad, have applied for a franchise to operate an extensive motor freight and express system in that territory and the independent truckers are protesting such action.

LESS than six months remain before the opening of New Jersey's egg-laying contests on next October 1, says John W. Goodman, superintendent, New Jersey egg-laying contests. The pullets to be entered in these competitions should, as a rule, be selected from April or early May hatches. Contest records indicate that the best birds to enter are those coming into production shortly before or shortly after the start of the egg-laying contest year. Pullets that have been producing for a month or so before the contest begins are less desirable because the change to the new environment frequently causes them to quit laying. Late-maturing pullets are likewise undesirable for contest pens because they lose valuable time before beginning to lay.

Heavy breeds take from five and one-half to six months to mature and they should therefore be selected from early to middle of April hatches. The Leghorns, which generally lay at about five months of age, may be selected from late April to early May hatches. There may be some variation from the foregoing, depending on the strain of birds and the management methods.

Pullets entered in egg-laying contests cannot be expected to make good records unless they are given a good start in life and reared under favorable conditions. Frequently, mortality in contest flocks can be traced to ailments of the young stock. Symptoms of coccidiosis, worms and other troubles of adult fowls, as well as a general weakened condition are, as a rule, indications of disease or mismanagement in early life.

Poultrymen who wish to rear healthy pullets capable of laying heavily can do no better than to participate in the "Wage War on Worms and Disease Campaign" which is being conducted by the extension service. The recommendations of this project point the way to growing healthy and vigorous flocks, from which the contest pens may be selected. Poultrymen desirous of rearing their birds in accordance with the recommendations of this campaign should apply to their local county agricultural agents for additional information.

A COW's diet has a direct influence upon the quantity and quality of the milk she produces. Cows that have been confined all winter and fed dry roughage and dry grain concentrates when turned out on good pasture respond with an increased flow of milk that has a higher nutritive value.

Milk produced on summer pastures is three times as potent in its vitamin C (ascorbic acid) properties as milk from cows fed dry feeds, according to R. G. Connelly, New Jersey associate extension dairyman.

Some of the other nutritive qualities of milk also are improved when cows are turned out on fresh pasture. The young grasses are succulent in nature and rich in highly digestible proteins, minerals and vitamins. These stimulate production, improve the mineral as well as the vitamin content of the milk and otherwise impart to it nourishing and health building qualities.

THE potato grower who does not spray this year is taking a chance which he can ill afford.

This is the warning of Dr. W. H. Martin, plant pathologist for the New Jersey Agricultural Experiment Station, who points out that the acreage of potatoes in southern states is "well in excess of last year."

"In view of this situation," Mr. Martin says, "we must obtain maximum yields to the acre this season. The thorough spraying with Bordeaux mixture is one of the greatest aids to producing bumper crops of potatoes. The first application should be made when the plants are 4 to 6 inches high, and subsequent applications should follow at 7-day to 10-day intervals. Apply the spray at the rate of at least 100 gallons to the acre, and adjust the nozzles to cover thoroughly each plant with a film of spray material."



This farmer finds one of the newer outfits a time and trouble saver in cultivating checked corn.

PROMISES of "\$3 for \$1" is not an advertisement for some kind of a security-selling scheme; it is a claim made on the basis of the experiences and observations of 2,053 corn growers in Pennsylvania, Maryland, New Jersey, Delaware and West Virginia.

The use of fertilizer increases corn yields on an average of 12.8 bushels per acre as judged by the yield estimates of more than 1,000 corn growers in Pennsylvania. The average increases expected in the other states are: Maryland, 11.9 bushels; Delaware, 11.8 bushels; New Jersey, 26.2 bushels, and West Virginia, 17.7 bushels. These data were obtained in a survey made by The National Fertilizer Association in which 5,796 farmers in these five states were personally interviewed regarding their experiences and observations in the use of commercial fertilizer. Of this number, 4,995 gave corn as one of their crops.

The average estimated increases of from 11.8 to 26.2 bushels amount to gains of from 30 per cent in Delaware, to 70 per cent in New Jersey, over the yields expected by those same growers without fertilizer. At average corn prices, each dollar invested in fertilizer, according to these farmers, returns yield increases worth approximately \$3.50 in Pennsylvania, \$2.50 in Delaware, \$2.25 in Maryland, \$5.50 in West Virginia and \$3.25 in New Jersey.

In growing corn, the yield, while very important, is not all. What about quality? One of the questions asked in this survey was, "Have you noticed any effects of fertilizer on the market quality and feeding quality of your crops?" While this question was asked for crops in general, the answers given can be said to apply as fully to corn as to wheat and other fertilized crops in this region. More than 4,100 of those interviewed stated they had observed that fertilizer improves market quality; nearly 3,500 stated that fertilizer also improves the feeding quality of crops.

How Quality Counts

Improvement in quality affects the value of the entire yield of a crop, and not merely the increased bushels. For example, a yield of 35 bushels of 86-cent corn is worth \$28; a yield of 50 bushels of 85-cent corn (allowing five cents per bushel for better quality) is worth \$42.50, or \$14.50 more than the corn of lower yield and market quality. Of this amount, \$2.50 may be credited to improved quality.

Closely associated with yield and quality of crops is the matter of time of maturity. With corn and

Food for the Corn Crop

By H. W. WARNER

other late-harvested crops, early and even ripening is very much to be desired. That fertilizer hastens maturity is rather generally accepted but additional evidence is always in order. Nearly 4,800 of the 5,796 farmers who answered this question reported that fertilizer hastens crop maturity. The value of this effect alone in seasons like 1924 and 1927 may be worth much more than the cost of the fertilizer.

A quick start of the young corn plant helps in several ways. It makes it possible to cultivate a few days sooner than might otherwise be done and thus get ahead of the weeds; it is especially valuable in cold, backward seasons and for late-planted fields. According to the hundreds of farmers who answered the question, commercial fertilizer gives crops this much-desired quick start. In fact, 5,211 of the 5,796 farmers interviewed—nearly 90 per cent—stated they had observed this effect.

A point deserving special mention is that 2,316 farmers reported having observed that fertilizer increases crop resistance to disease. In Pennsylvania, about 60 per cent of the corn acreage now receives commercial fertilizer; in New Jersey, about 70 per cent is fertilized. In Delaware, Maryland and West Virginia much less than half of the corn acreage is so treated. The experiences of farmers, the records of farm tests and results from official experiments show for practically all eastern soils that additional plant food will pay.

Machinery Plays Its Part

MODERN machinery not only makes possible more rapid handling of operations common a few years ago, but also permits adoption of methods not heretofore practical or possible. In the East where corn ground is nearly always plowed

before planting, farmers find two, three and four-row bottom tractor plows of great aid in taking advantage of a few extra days of plowing weather. Although the plow is a relatively new machine, we have heard of several farmers who have plowed sandy or firm soil with the one-disk, and by using disk-harrow or field cultivator before planting are able to secure good results.

A great many acres of corn will be planted by tractor planters this spring. The rotary hoe is becoming more common, as farmers have found that using it they can keep practically weeds out of the row. Indications certainly point to the use of the rotary hoe in planting listed corn in the West. The rotary hoe is becoming more common, as farmers have found that using it they can keep practically weeds out of the row.

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Two, three and four-row listers are going to have a history for those men who use them. Where ground has been worked before, all-purpose listers can pull the two and three-row outfits easily, and planting will be speeded up.

A program which has been followed by several farmers in Illinois and Iowa may bring out new ideas although it is not one which will necessarily suit all conditions.

Use of Harrow

The corn is harrowed several days after plowing, just as soon as a few small weeds have appeared. This smooths out the planter tracks and serves as a cultivation. Some men have used a device which attaches to the planter and harrows the dirt over the row. This prevents washing in of rain, and the initial harrowing can be deferred a few days longer.

Then the rotary hoe is used either once or twice before the corn is six or eight inches high. The number of weeds, soil and weather conditions, amount of acreage would determine whether the hoe was used twice, or only once.

Using the cultivator after the initial hoeing is favored by a number of men. They can make the corn as the corn is then sufficiently large to get out of danger from covering. Of course, the number of acres one man can handle has been largely by use of three and four-row cultivators.

One farmer suggests that a small ridge be run along each side of the corn rows. Then when the rotary hoe is used it will tear into this soft soil and destroy seedling weeds which have started. The corn will be about twelve inches high when it is gone over the second time with the hoe, if the procedure we have been discussing is followed.

The next cultivation will have to be with the shovel cultivator and will probably be the last. Tudor Charles



Results of "no treatment." Both pictures were taken in Bradford county, Pa., where fertilizer tests were made by the state Experiment Station.



This corn field shows the effect of lime and a complete fertilizer.

Milly Woodbridge's Trek to the Pacific

The Pioneers of the Peace River Valley

By C. A. Stephens

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SYNOPSIS

Two New England families, who have gone to the Peace River country in Canada to make homes, find themselves in unfortunate circumstances when the railroad, on which they had based their hopes, is not built near where they have settled. One of the families, the Mastermans, moves away, but the other, the Woodbridges, remains in the vain hope that something will happen to create business for the sawmill they have built. The son and daughter advise following the Mastermans' example and go back to civilization while they still have enough money to make the journey, but the father refuses to leave his mill. At last, when it became evident that they could not live through another winter on the Peace river, and after their money had been spent, they started to walk across the thousand miles of wilderness, and mountains that stretched between them and the Pacific Coast.

might have been the part of wisdom, but they did not do it, and Barty followed on after them that day, begging as often as he caught up.

A thunder storm occurred during the afternoon and they camped early in order to dry their clothes and their outfit. The place chosen was beside several large rocks close to the river; and by Milly's advice, Winthrop cut a number of large poplar poles and fenced in the rearward portion of their camp, to keep Barty outside it. While Milly prepared their evening meal, Woodbridge, senior, led out the horse and the Jersey to graze at open places along the river bank and Winthrop fished with some little success in a pool at the foot of a rapid turn of the stream just above their camp.

Later they tied up Bright-eyes and the old horse inside the fence to prevent Barty from annoying them. Throughout the evening, however, the latter stood by the fence and begged, his extensive appetite not much appeased by the fish Winthrop tossed to him. The kind of fish they took from the river here were not trout, but wall-eyed pike, some of which were of five pounds weight.

The night passed without incident; and after this manner they went on for four or five days, fol-



The Cheerful Plowman

TROUBLES THAT NEVER COME

WHEN I am out with Nig at night I find the rascal's full of fright. He shies, and starts, and snorts, he catters to the right and left, of common sense he is bereft; he jumps, and jerks, and sports.

"What is the rip with you?" I say, "You're safe as in the light of day, there are no dangers there. That whited thing is but a birch, so why throw up your head and lurch, a shame upon your scare! Shucks, that dim sound is but the wind, you act like one whose heart had sinned against the very fates, there are no dangers in the trees, or in the cool nocturnal breeze, no murder in the gates. Cut out the monkey shines, old top, cut out the nervous skip and hop, and be a horse of grit. Why act the baby in the night, you who by day are brave and bright, be calm and use your wit."

Yes, thus I lecture skittish Nig in phrases round, and strong, and big, in moral tones and clear; I lecture him like one, by gee, who never had a trembling knee, like one who knew no fear. But listen, just a while ago I faced six notes all in a row, all coming due at once, and sixteen pigs all died that day, while three fat gobblers ran away and left me only runts. The bank in which I had six bucks broke up like brittle peanut shucks, and hail fell in my oats, the mumps appeared among my geese, cried I, "Will terrors never cease? How can I meet those notes?"

"The night is dark," I cried, "alas, the gobblers will not let me pass, they have me by the neck; the spooks are dancing on my chest, they give me neither peace nor rest. I am a total wreck! What next? Ah, look! The sheriff comes right through the night to grab my thumbs and lead me off to jail. I am afraid, where shall I turn, my very eyelids smart and burn. I fear the dark. I fall."

How silly! Daylight came again, I held my place among the men, I had no spooks to flee. So, dear Old Nig, forgot the ghosts, they are but trees, they are but posts; you're far too much like me. J. E. T.

lowing the Peace through hilly country, much of it brule where fires had formerly burned the forest. Far to the west they could see high mountains, some of the peaks capped with snow. The thought that these would have to be passed filled the elder Woodbridge with a dread that was well-nigh despair. His was far from being the courage of Hannibal. "Beyond those summits of great pain" there lay no "Italy" for him.

Every night they chose a place for camping that could easily be fenced about to protect their stock and tent—a wise precaution on Milly's part, although Winthrop sometimes grumbled over the extra labor with the ax. Barty still followed them, greedily bolting whatever they had to throw to him. One night an elk, or else a moose, came trotting rapidly along the path by the river and actually stepped astride their fence before it perceived the horse and the tent. Suddenly aware of something unusual, it bounded away with a loud, shrill snort.

On another night, the eleventh, I think, after leaving Hudson's Hope, they were awakened by loud, angry growls from Barty. The dim "old" moon now gave but little light; yet as nearly as they could make out, another bear had approached, attracted, perhaps, by the odor of fish. Barty appeared to resent the presence of his congener. The growing on both sides was terrific. Winthrop took his gun to interfere, but while he was trying to catch sight of the obstreperous newcomer, both bears went off at a great pace. Barty was chasing the interloper, they thought, though how he managed to do so was not easily understood. Away they went, however, crashing through underbrush till they appeared to be fully a mile away. When an even louder uproar ensued for some time. The outcries indicated that more than two bears were now involved in the melee. The silent, dim wilderness reechoed to the uproar. Prehistoric dinosaurs in savage conflict could hardly have raised a more awesome rumpus. Yells as of extreme pain presently succeeded to the growls and roars of ferocity, and ere long the combatants appeared—from the sounds—to be racing off to a greater and greater distance, till finally the noise of their contention died away in the far forest.

Milly and Winthrop had stood listening with mingled feelings of solicitude and alarm. "Do you suppose poor Barty will ever come back?" the former exclaimed. "Oh, he will be back, if they haven't killed him," Winthrop replied. "Nothing less will keep him away from us."

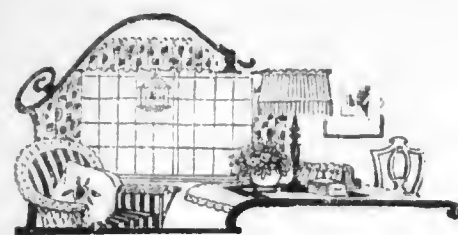
But Barty had not returned when they went on next morning. "I'm afraid those other bears have mauled and mangled him till he has crawled away somewhere to languish and die," Milly said ruefully. "More likely he is merely lying up to recuperate," was Winthrop's opinion. "I wager we shall see him again within two days, hungry as ever."

"I SUPPOSE it is useless to try to look him up," Milly remarked a little later, as they took their way along the trail to the westward. She, too, believed that Barty would probably overtake them. In point of fact, however, they never saw him again;—and Freeman Woodbridge considered this a very good riddance from a troublesome camp-follower.

As they continued on toward the mountains of the central range of the Rockies, the hills encroached more upon the river valley, rendering the trail along the north bank difficult to follow. At times they were near losing it altogether in the thick spruce woods, and were delayed picking it up. Often there were windfalls across it which Winthrop had to cut away before the old horse and Bright-eyes could go on. Some days they made no more than three or four miles. In short they had far greater difficulties of this kind than we have space to recount; but there was no danger of becoming lost as long as they kept within sight or hearing of the river.

Two days after the quiet night when Barty disappeared, they met wayfarers on the trail in the form of four Indians, probably of the Beaver tribe. Winthrop was ahead at the time, cutting away a windfall, when hearing a low exclamation, he looked around and saw a squaw with a gun and a pack a few steps away, regarding him with a startled expression. Behind her came another squaw bent half double in the path, carrying on her back the only man of the party, who appeared to be taking matters easy. In the rear came still another squaw heavily loaded with their entire outfit, including a brown, sharp-eyed infant that peered fearfully over her shoulder.

(To be continued.)



The Farm Home

Guess-Work in Canning Is Wasteful

By GERTRUDE S. STEWART

THE farm home-maker who measures the health of her family and also counts dollars and cents is the woman who cans fresh vegetables and fine fruits every time she has a surplus. By "doing up" a few jars weekly, this thrifty woman is making possible a well-balanced diet at all seasons.

So many readers have written us during the past winter for help with their canning that we want to discuss with you some of the problems and better methods of procedure. One of the first and foremost rules of successful canning is to use products that are freshly gathered.

Pressure Cookers Are Insurance

The best known method of sterilizing the food we can has been the water bath method. This method is entirely successful for processing fruits, tomatoes, pickled beets and pimentos, but today the Bureau of Home Economics in the U. S. Department of Agriculture strongly advises using the pressure cooker for safely processing all non-acid vegetables. Their latest bulletin on canning No. 1471, does not give directions nor time tables for water-bath canning of asparagus, beans, baby beets, corn, greens, okra and peas.

All of these vegetables they recommend should be canned with the steam pressure canner. This is because of spoilage difficulties and the risk of poisoning from botulinus bacteria often not destroyed when non-acid vegetables are processed in the water bath.

Pressure cookers are specially designed for obtaining higher temperatures than can be reached in a water bath. They are strongly built, and the top clamps on so tightly that there is no leakage of steam when the cooker is closed. Other points to check in selecting a pressure cooker are: be sure the top is equipped with a safety valve, a thermometer and a pressure gauge.

Asparagus and Dandelion

Canned asparagus if done in the pressure cooker is a great delicacy. I never have enough to please us all winter. There are three ways to preserve it and all are delicious. Perhaps the very choicest method is to tie the tips in uniform bundles, stand them on end in a deep pan covering the lower tough portion with boiling water. Cover the pan tightly and boil five minutes. Then pack at once into hot sterilized jars, cover with hot liquid, add one teaspoon salt and process 40 minutes at ten pounds pressure.

The very same pressure and time apply to the tips cut in inch lengths. Then there are always culls and trimmings, which make wonderful puree for cold winter suppers. These you boil until soft, then press through sieve, add seasoning as desired.



pack hot and process for one hour at 15 pounds.

Dandelion, that earliest of all spring greens can be served all through the year if we gather it fresh and tender right now and can it. Just clean it thoroughly, steam it in a covered pan until entirely wilted. Pack it into hot jars (rather loosely) cover with fresh boiling water, add one-half teaspoon salt and process 90 minutes at ten pounds pressure.

If pressure cooker canning is entirely new to

you and you wish to study it more thoroughly, let us send you a booklet on the subject. Mail your requests at once to Home Department, Pennsylvania Farmer, 7301 Penn Ave., Pittsburgh, Pa. And don't forget the self-addressed stamped envelope.

Prize-Winning Cakes

Mrs. John S. Ramsey

HOW often when we were baking a cake for the Sunday School picnic, the Parent-Teachers Association Food Sale or the Saturday night Grange Supper, oh, how often we have wished for two recipes that sort of fitted together! Well, here they are:

White Walnut Cake

Two cups sugar, three cups sifted cake flour, five egg whites, one-half cup butter, one teaspoon vanilla, one cup sweet milk, two teaspoons baking powder, one cup chopped nut meats.

Blend butter and sugar until smooth and creamy. Sift flour and baking powder five times, then add to the first mixture alternately with the milk. Beat in the vanilla and nuts. Fold in the stiffly beaten egg whites. Bake in three layers in moderate oven for twenty minutes. When baking



Pressure cookers are great savers of fuel and time. Meats of tough cuts cook deliciously tender in one-third the usual time. Vegetables and puddings cook in pans on racks above the meats.

this cake, use the egg yolks to make the following delicious

Sponge Cake

One and one-half cups sugar, one cup scalded milk, five egg yolks, one-half teaspoon orange or lemon flavor, two cups sifted cake flour two teaspoons baking powder, two whole eggs, pinch salt.

Beat eggs slightly then add the sugar a little at a time, beating after each addition until very light. Add the hot milk and beat thoroughly then sift in the flour which has been sifted previously four times with the baking powder. Flavor, and bake in an ungreased tube pan for one hour in a very slow oven.

Note:—The contest editor has been thrilled with the many, many splendid cake recipes sent in and is sorry that many were submitted after April 5 when the contest closed as announced. Since we seem to be real baking enthusiasts, we will continue to print the very finest of these cake recipes as often as space permits. Checker-board cake pans will be sent to all prize-winners.

Cake Baking Editor.

My Daily Thank You

I LIKE Charles Kingsley's idea of the everyday gratitude. He says: "Thank God every morning when you get up that you have something to do that day which must be done, whether you like it or not. Being forced to work, and forced to do your best, will develop in you temperance and self-control, diligence and strength of will, cheerfulness and content, and a hundred other virtues which the idle will never know." G. S. S.

The Pennsylvania Hills

By MARGUERITE STEELE MCCREARY

KNOW no spot where springtime's half so bright
Nor any air so filled with charms and trills
No summer nooks so crammed with sheer delight
As here among the Pennsylvania hills.

The twilight cannot find a place so sweet,
Where with such tender, loving thoughts it fills
The heart, and bids it all things bravely meet
As here among the Pennsylvania hills.

I know no place where flaming autumn flaunts
Such gorgeous banners, gay with leafy frills
Then veils them in the sunset's purple haunts
As here among the Pennsylvania hills.

And softly, gently, winter's covering snow
Wraps field and slope in glittering silence, still
All nature—everything save winds that blow
Through whispering trees on Pennsylvania hills.

Sometimes through other scenes I chance to roam
I see and hear what people say are "thrills";
But best of all the "thrills" is getting home—
Back home among the Pennsylvania hills.

And when at eveningtime no more the west
For me will glow—come that day when God will
Then gently lay me on the quiet breast
Of one of Pennsylvania's sheltering hills.

Sing, Play and Be Happy

By MARION COSSITT BRACKIN

MUSIC will mean more to us as we grow older if we practice daily. For if our fingers are no longer supple, we can express ourselves any more than a run-down sewing machine will play records well. The studying music cannot yet know the deep joy of life's experience. What a shame then, knowing the riches of experience, am unable to express myself musically, merely because I do not keep up practice. I can live by music, keep it up. The energy and tempo of music enter into my daily actions. My days will go a nerve and I shall know intimately the spirit of leadership and accomplishment if I keep in with the harmonies of the great masters.

Music, played, works two ways. As I play spirit is freed; I am able to express myself, escape from my immediate surroundings, to young again though my years are many, to the secret of life though I am very young.

And, conversely, as I play, the spirit of the moment enters into me, enlivening me, giving me the ability to do, sweeping my mind clear of the cobwebs of doubt and hesitancy, giving me the power of splendid leadership, making my life vivid and beautiful and worth-while.

Will not this power come from merely listening to music? In this day of the radio, the average person has a wonderful opportunity for that. But the great power of music in life comes strongly on to those who can play or sing, who have spent an hour to spend, then let me spend minutes, even fifteen minutes a day. That alone will make a vast difference in my life.

There are two kinds of success in life; the outward and the inward; the success the world measures, and the success the inner individual craves and recognizes in himself. Music will surely lead my life toward both of these successes. It cannot fail to lead to success with its promptings toward strength and ability, toward leadership and accomplishment.

Can I spare the time for music? Shall I give my child a musical education? How can I afford or dare to do otherwise? I must not let it slip out of my life through carelessness nor through some fancied idea of being too busy. The busy my days, the greater do I need some little time each day expressing music. Let us keep up our music! We cannot afford to let it slip!

Note:—"Show me the home wherein music dwells," said Longfellow, "and I shall show you happy, peaceful and contented home."

Music Week, starting May 4, may be used as stimulus toward more making of music in the home by family and friends, with results such as Longfellow has outlined. In this way the Music Week Committee may bring about a literal realization of the slogan, "Music for Everybody—Everybody for Music."



Improve Your Wardrobe

HOW TO ORDER

Write your name and address clearly. State number and size of each pattern. Price 15c each, two for 25c. Send stamps or coin. Our Fashion Magazine will help in preparing your wardrobe. Copy only 10c. Address Pattern Department, Pennsylvania Farmer, 7301 Penn Ave., Pittsburgh, Pa.

No. 6832.—Misses' dress. Cut in three sizes: 16, 18 and 20 years. A 16-year size requires 1 1/2 yards of material 35 inches wide. To finish with bias binding requires 1/4 yard 1 1/2 inches wide. Ribbon sash requires 3 yards. Price 15c or two for 25c.

No. 6843.—Ladies' house dress. Cut in three sizes: 36, 38, 40, 42, 44, 46 and 48 inches bust measure. A 38-inch size with long sleeves requires 4 yards 35 inches wide. With short sleeves 3 1/2 yards will be required. For collar, vestee and pocket flaps of contrasting material 1/4 yard 1 1/2 inches wide is required, cut crosswise. The width of the dress at the lower edge is 1 1/4 yards. Price 15c or two for 25c.

No. 6801.—Infants' set. Cut in one size, made as illustrated the dress will require 1 1/2 yards of 36-inch lawn or nainsook and 2 yards of edging 3 1/2 inches wide for the ruffle. The gown will require 1 1/2 yards of 27-inch material. The sack 1/2 yard of 27-inch material, and the cap 1/4 yard of 18-inch material. Price 15c or two for 25c.

No. 6820.—Ladies' dress. Cut in five sizes: 36, 38, 40, 42 and 44 inches bust measure. 36-inch size requires 3 1/4 yards of material 35 inches wide. To finish with bias binding requires 1/4 yard 1 1/2 inches wide. Price 15c or two for 25c.

No. 6838.—Boys' suit. Cut in four sizes: 4, 6, 8 and 10 years. A 4-year size requires 1 1/2 yards of 47-inch material. Price 15c or two for 25c.

No. 6833.—Ladies' morning frock. Cut in three sizes: 36, 38, 40 and 42 inches bust measure. A 38-inch size requires 3 1/4 yards of material 35 inches wide. To face with

contrasting material requires 1/4 yard 35 inches wide, cut crosswise. Price 15c or two for 25c.

No. 6254.—Ladies' step-in chemise, cut in four sizes: Small, 34-36; medium, 38-40; large, 42-44; extra large, 46-48 inches bust measure. A medium size requires 2 1/2 yards of 32-inch material. To trim with lace bands will require 2 1/2 yards. Price 15c or two for 25c.

No. 6450.—Girls' slip. Cut in five sizes: 6, 8, 10, 12 and 14 years. A 12-year size requires 1 1/2 yards of material 36 inches wide or wider, if made with shaped shoulders. With straight top 1 1/4 yards will be required. To trim the straight top as illustrated requires 1 yard. Ribbon shoulder straps and a bow will require 1 1/2 yards. Price 15c or two for 25c.

No. 6837.—Ladies' blouse. Cut in five sizes: 34, 36, 38, 40 and 42 inches bust measure. A 38-inch size, with collar and sleeves requires 2 1/4 yards of 35-inch material. Without sleeves and collar, 1 1/2 yards will

Life is just one baking triumph after another



...when you've discovered Calumet's Double-Action

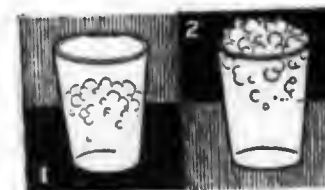
WHAT a joy to pull out of the oven those delicious-looking muffins—those light, perfect biscuits! Calumet's Double-Action brings you sure success in all your baking!

Calumet's first action takes place in the mixing bowl. This starts the leavening properly. Then, when you put your cake or muffins into the oven, the second action begins. A full, steady rising lifts your batter up and holds it, high and light—even though you may not be able to regulate your oven temperature with absolute accuracy.

All baking powders are required by law to be made of pure, wholesome ingredients. But not all are alike in their action. Not all will give you equally fine results in your baking. Calumet is scientifically made of exactly the right ingredients, in exactly the right proportions to produce perfect leavening action—Double-Action. Because of this, it is the most popular baking powder in the world today.

Make a Calumet cake, or some biscuits. See for yourself what perfect results Calumet's Double-Action brings. Use only one level teaspoon of Calumet to a cup of sifted flour. This is the usual Calumet proportion and should be followed for best results. A real economy, too.

Mail the coupon for the new free Calumet Baking Book—full of wonderful recipes!



MAKE THIS TEST

Naturally, when baking, you can't see how Calumet's Double-Action works inside the dough or batter to make it rise. But, by making this simple demonstration with only baking powder and water in a glass, you can see clearly how baking powder acts—and how Calumet acts twice to make your baking better. Put two level teaspoons of Calumet into a glass, add two teaspoons of water, stir rapidly five times and remove the spoon. The tiny, fine bubbles will rise slowly, half filling the glass. This is Calumet's first action—the action that takes place in the mixing bowl when you add liquid to your dry ingredients. After the mixture has entirely stopped rising, stand the glass in a pan of hot water on the stove. In a moment a second rising will start and continue until the mixture reaches the top of the glass. This is Calumet's second action—the action that takes place in the heat of your oven.

Make this test. See Calumet's Double-Action which protects your baking from failure.

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GAS... gas and fresh, running water! Gas instantly — and as easily as turning a water faucet! Dry, clean gas without a drop of liquid fuel in the house — and with a flame three times hotter than city gas.

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Grow them healthy back of Cambria Fence

There is a style of Cambria Fence for every farm use; for turning horses and cattle, sheep and hogs; for chickens and rabbits, little chickens, and for enclosing orchards. Many farmers keep on hand a stock of the styles which meet their needs. Cambria Fence is easy to set up; but to insure quickest erection, best all-round service and longest life, use the combination of Bethlehem Steel Fence Posts and Cambria Fence.

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BETHLEHEM

BETHLEHEM STEEL COMPANY, General Offices: Bethlehem, Pa.

be required. To finish with bias binding requires 5 yards 1½ inches wide. Price 15c or two for 25c.

No. 6119.—Sun suit. Cut in four sizes: 2, 3, 4 and 5 years. A 3-year size requires 1½ yards of 36-inch material. To bind neck and arm openings as illustrated will require 1½ yards of narrow bias binding. Price 15c or two for 25c.

No. 6856.—Men's pajamas. Cut in seven sizes: 34, 36, 38, 40, 42, 44 and 46 inches breast measure. A 40-inch size requires 5 1-6 yards of material 32 inches wide. For contrasting material ¾ yard 32 inches wide is required cut crosswise. Price 15c or two for 25c.

No. 6848.—Boys' trousers and knickers. Cut in five sizes: 6, 8, 10, 12 and 14 years. To make the knickers for a 14-year size requires 2 yards of 35-inch material. For the trousers 1½ yards is required. Price 15c or two for 25c.

No. 6849.—Ladies' skirt. Cut in six sizes: 28, 30, 32, 34, 36 and 38 inches waist measure. A 30-inch size requires 1½ yards of 35-inch material. The width of the skirt at the lower edge with fullness extended is 1½ yards. Price 15c or two for 25c.

No. 6840.—Girls' dress. Cut in five sizes: 1, 2, 3, 4 and 5 years. A 3-year size requires 1½ yards of material 32 inches wide. To finish with bias binding requires 2½ yards 1½ inches wide. Price 15c or two for 25c.

Do You Read?

I AM a homemaker and would hardly know how to go about my job without my magazines. From them I learn how to make my clothes so as not to look "too dowdy," how to prepare new dishes which my family tires of old ones, how to furnish my home in good taste, though I'm poor, what the newest and best products are on the market and why they are best, what ails my chickens when they sit down and shut their eyes, how to make soap and how to keep a husband.

Then there is no estimating the value to children of acquiring the reading habit; it not only supplements knowledge gained at school but makes it easier for the child to learn dry facts from the text if he has other reading on the same subject with which to embellish these facts. Starved indeed is the child's mind that is fed on nothing but text books, yet I have known many such.

Personally I think it much more important that school children have a conversing knowledge of what Edison, Ford, Hoover, Lindbergh and other great men are doing than to know the deeds of Caesar and Charlemagne.

Wasting Time!

I would like to mention another advantage to farm people, of reading, which is not so apparent. Were you ever made to feel embarrassed and ill at ease in the presence of some one who seemed to have had better educational advantages than you? Reading will give you poise and ease of manner; it gives you knowledge and knowledge is power; it will open the door to the house where the great, the good and the wise live and you may get acquainted with them and know them as friends.

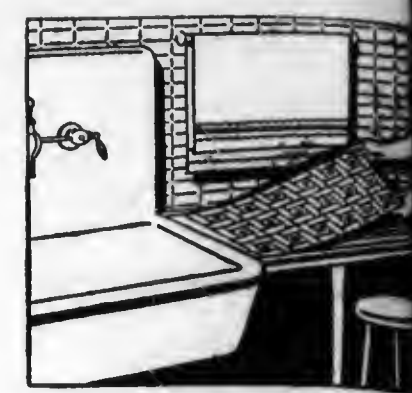
Why can't something be done to urge more reading among rural people? I may be wrong but it seems to me this failure to take advantage of solutions to farm problems as they are found in farm and home periodicals is the greatest hindrance to farm progress. In our own community where I am familiar with the homes I find a deplorable dearth of current reading material. The idea seems to be that time spent in "sitting around reading" is time wasted.

Mrs. H. L. James.

Hints for Homemakers

IF your old wooden drain board is the worse for wear, buy a piece of embossed inoleum, fit it to the board, and tack it down. The water will follow the indentations, and the inoleum is soft enough to prevent the chipping of your dishes.

Glazing adds a gay and appetizing touch to meats. In barbecuing beef, sear and brush frequently with the glazing syrup which is made by boiling, until the sugar is dissolved, one cup sugar, one-fourth cup water, and two tablespoons lemon juice, and then



Mollie's Hat

THE first show I ever saw Uncle Tom's Cabin, and I walked five miles for the chance, or rather started to walk. It was a hot day in haying season, and father could not leave such work for any one but the big posters had stirred me and I was simply wild to go.

Mollie, my best friend in all the undertakings, lived on the next farm. She wanted to go, too, and finally her parents consented that we might go to the show. An uncle living in town would be entrusted to bring us home.

We started early in the morning and the sun was never so bright, and the skies so blue. We were very happy. After we had finished the miles of the journey a gentleman on a horse and buggy overtook us and invited us to ride.

Although this occurred way back in the 'eighties,' we were not so bashful for little country girls of eleven and "in we stepped," and what a time we were soon speeding behind him. He was like a wild wind.

The kind man sat in the middle of the seat, pretty near the edge, and we were on each side of him. He could smile to each other and he could not see us, but a sudden gust of wind took Mollie's hat, and she signalled me to tell our kind benefactor. I signalled back for her to tell him herself. But she was too shy, and I was I. And besides, it was her hat, not mine.

The horse raced on, and we kept motioning back and forth about the hat. It was Mollie's very best hat, now far out of sight. At last Mollie piped out, "Oh, mister, I lost my hat!" He just said, "You did? Where?" and poor Mollie replied, "Back there."

In jiffy time we had the hat and were soon in town. We went out to Uncle at once where we had lunch and the off to the show. What joy and bliss seeing Eva and Topsy! How thrilling we were when Eliza crossed the street. It was a wonderful show and we were so elated over it that uncle wanted to see it, too. So he took us again that same night.

In later life I learned to know the "buggy man" as we called him. We are very good friends and have many a hearty laugh about "Mollie's hat."

Canning Greens

I DON'T suppose there is a farmer's wife who could not keep two weeks busy with the work she is supposed to do herself, so that she must decide on the most important, and be the rest good. I generally pay pretty close attention to canning, because the winter is so long.

I gather the stalks, pick them carefully, wash in as many waters as necessary for the last one to be perfectly clear, put in a kettle and cook in water until well wilted, then pack in pint jars, with one teaspoon of one of sugar and one tablespoon of vinegar. Screw on the caps loosely, pack the jars in a kettle with cloth about them so they will not knock together and crack, and boil for two hours. (I have never achieved a pressure cooker, although I live in hope. Tighten the lids and store away in dark cupboard.

F. C. Hebel.



3 Evergreens \$1.80
Norway Spruce, 2 Arborvitae, 2 Austrian Pine, 2 Japanese Communia.

6 Evergreens for \$1.10
Norway Spruce, 2 White Spruce, 2 Chinese Arborvitae.

God Tree of Himalayas, \$1.10
Ginkgo biloba, Silver foliage, blue tint. Trees 1 to 1½ feet.

Warrior Dwarf, Dark red, 2-year shrubs for \$1.15
Gaulthier Tree, 1 to 1½ feet, 2 for \$1.15

Flatt, 1½ to 2 feet, each \$1.10
Early Arborvitae, 2 for \$1.15

Early flowering, beautiful, each \$1.10
Hydrangeas in red, pink and purple; 1½ plants for \$1.50

Large plants, 1½ for \$1.50
Early flowering, 1½ for \$1.50

Early flowering, 1½ for \$1.50
Early flowering, 1½ for \$1.50

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Fireplace Philosophy

I HAVE been "keeping back" the last few days. Having roughed it at odd times in my life this was an opportunity to pull up the rug in the west sitting room and start an open fire on the hearth I played at fifty years ago. Two other generations of men have a way of coming and going as I sit in the firelight—the hoary bearded face of grandfather, staid old man, and the tap of father's restless foot on the hearth.

My fuel is odds and ends of stuff, timbers from an old barn now replaced by new; posts from discarded fences and fences that justified replacement; wooden pieces from disused implements, some worth while in their day and others may be on the order of mere flukes; occasionally a full grate basket of dry and flashy corn cobs; now and then a neat section of fence rail that served its days and generations well, its very presence at my fireside at this time bearing valiant testimony to the tough and rugged fiber of its makeup. My fuel speaks to me—words of encouragement, words of caution, words of wisdom gleaned from its sundry service through the years.

A Balance of Life's Compensations

Spring instills into these thoughts many reflections of past springs and aspirations for the baby spring now born. Who should be surprised if I saw in the dancing flames or in the glowing coals a balance weighing the compensations of life—betimes a bulky mass of something seems to weigh so little and betimes an apparently insignificant bit bears down the scale beam with amazing effect!

Grandfather bought this farm in 1827. Maybe he sat one hundred years ago tonight on this very spot in his cabin before his other glowing or smouldering fire and wondered, reflected on the compensations of life also. He lived simply, he lived long, he lived well—at the ripe age of 81 he passed on a suitable heritage of "worldly goods" and an exemplary heritage of rugged character. I remember his linchpin wagon and grandmother's rumbling old loom. His flail still hangs in the barn.

He once told me that when he became lost in the thick woods at night he kindled a fire and waited for dawn lest he wander further and further from the destination to which he was going. As I look into my comfortable fire tonight I think of his fire—and think of its purpose. In this day of unnumbered wants and countless luxuries they stand like a forest around us, something grim and terrible in which we may go rushing ahead and get lost—forget the safe and quiet destination at which we are bound to arrive with caution in our steps.

Why All the Rush?

The world is full of other men—I don't need to scoop the last clod I can get onto the shovel! The bandwagon is full to overflowing with a clamorous crowd. Why should I kill body and spirit to pay the price of the bright uniform necessary to ride? The world is already overplowed; why should I tear up more and more ground with near frenzy? The world is overfed; why drag by the ears more stubborn fat hogs than one man is due to deliver?

So, as I cast a little of this and a little of that other into the balance of compensations I seem to see in the fire before me, I believe that I am going to have a sensible summer. I believe that I am going to be an average industrious and an average re-possessive farmer the coming year. I like this comfortable age in which we are living, but why play the breathless game of get-and-have to a dead and dropping finish? I like to sit before the little old grate once more and let the furnace cool off in a mild spell. When the hat comes round and round to pay the fiddler for later and later hours there comes a time to quit throwing in the handkerchief.

Hiram Dobbin.

WHERE... SHOULD A FARMER DRAW THE LINE?

You know there are few farmers — and few city people, too — who can have everything they want.

Every farmer draws a line.

On one side are the necessities, the things he must have to run his farm — food, clothing, seed, gasoline, implements. On the other side of that line are "Luxuries"—things he can get along without, unproductive things, ornamental things. He wants them—but he looks upon them as things to be bought some day in the future.

At first thought you may say electricity is a luxury; that you're going to have it some day, but not this year.

But is it a luxury?

Three hundred and fifty thousand farmers who use Delco-Light emphatically say: "No, it is not." They say Delco-Light is a necessity. They say it's a profit-producer.

They also say that along with this necessity that saves time and work, and actually increases their farm profits, they got—without any cost—all the luxuries made possible by electricity.

Let us send you the facts now

We want to send you our book "The New Way to Farm Profits." This will give you all the facts — including details of the arrangements by which you can secure Delco-Light on terms that will be satis-

On which side is electricity?

factory to you. Send for your copy of this valuable book today. It will convince you that Delco-Light belongs on the "must have" side of your line.

Delco-Light Company also sells and guarantees D-I-Electric Residence Water Systems and DELCOGAS for Household and Commercial Use. PRODUCTS OF GENERAL MOTORS

Now 350,000 satisfied users

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DEPENDABLE ELECTRIC POWER AND LIGHT

The nearest distributors are listed below. In addition there is a Delco-Light Dealer in every community.

Henry Clayton, 600 S. Delaware Ave., Philadelphia, Pa.
Suburban Electric Development Co., 5624 Penn. Ave., East End, Pittsburgh, Pa.
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J. B. Mitchell & Co., Inc., 25 W. Mt. Royal Ave., Baltimore, Md.
Domestic Electric Co., Inc., 39 W. 45th St., New York, N. Y.

Delco-Light Company, Dept. D-63 Subsidiary of General Motors Corporation, Rochester, N. Y.
You may send me a copy of your free book "The New Way to Farm Profits."

Name..... Town..... State.....
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WE HAVE THEM—YOU MAY WANT SOME
Any Collection Below for \$1.00 Postpaid.
Six Collections for \$5.00 CASH WITH ORDER.
Order by Number Please
No. 1—20 choice Guller Halls.
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Quaker FUL-O-PEP GROWING MASH

Name.....
and
Address.....
Mail today to The Quaker Oats Co., Dept. 11E, P. O. Box 100, Chicago, Illinois

Give no food for the first twenty-

Sometimes birds lose the ability to lay properly, and when this occurs we know of nothing to help. R. L.

... of sour milk in gal
tainers. For indigestion, tr
... of baking soda to
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Don't let YOUR CROPS get Indigestion

CROPS get indigestion just as humans do, when they eat the wrong food. Can't eat and don't grow right. Feed them Chilean Nitrate of Soda and watch their joyous response. Roots suck it up quickly. Plants get new vigor. Grow faster. Give greater yield.

Chilean Nitrate is the world's only *natural* nitrate. Its nitrogen is quickly and easily digested. All plants like it. Use as side dressing for corn. Prevents "firing." Makes more and larger ears per stalk. Fruit trees and truck quit loafing on the job and produce better crops. More important this year than ever to increase per acre production in view of lower prices. Liberal use of Chilean Nitrate is the make-sure way to crop-success.

Chilean Nitrate is always the same good, old dependable source of rich nitrogen. Now is the time to buy it. A few cents now puts dollars back in your pocket when crops are sold.

Free Fertilizer Book

New book, "How to Fertilize Your Crops," tells how to use Chilean Nitrate of Soda to get best results. Free. Ask for Book No. 1, or tear out this ad and mail with your name and address written on the margin.

Chilean Nitrate of Soda EDUCATIONAL BUREAU

57 William Street, New York, N. Y.
330 Citizens Bank Bldg., Columbus, Ohio

In writing, please refer to Ad. No. 23-K

1830-1930—An even century of fertilizer service to American agriculture.

Eat Luscious Strawberries
from your own garden this summer. The Great New NANTUX strawberry will fruit this summer and fall. If planted now, Post Paid 100 Plants, \$1.50; 250, \$3.00; 500, \$5.50; 1,000, \$10.00. The W. F. ALLEN CO., 143 Strawberry Ave., Salisbury, Maryland.

Asparagus Plants
Full of vigor. Best kind for home and market. 25 Washington 2-year strong roots, \$1.00; 50, \$2.00; 100, \$4.00. Write for catalog of Garden Roots, Ferns, etc. FRAGARIA NURSERY, Box 270, Fairport, N. Y.

KINKADE GARDEN TRACTOR
and Power Lawnmower
APRactical Power Cultivator for
Gardens, Suburbanites, Truckers,
Florida Nurseries, Fruit Growers.
New Low Prices—Easy Terms
American Farm Machine Co.,
1000 SPRINGFIELD, MINN.

**Offer for
Spring Planting—**
APPLE, PEACH, PEAR,
PLUM and CHERRY
TREES in large assort-
ment. All of the new and
standard commercial va-
rieties. Grape Vines,
Strawberry, Raspberry,
and Blackberry. Plants
Shade Trees, Evergreens,
Rhododendrons and Azaleas.
Beautiful Everblooming Roses
in large assortment. Largest grow-
ers of Fruit Trees for the commercial orchardist
in the East. All varieties propagated from select
orchard bearing trees. New Spring 1930 Catalog in
color now ready. It is free—write for it.
BOUNTIFUL RIDGE NURSERY, Box C, Pines Ave., Md
This advertisement will appear every two weeks.

Seed Corn
Early Clarence and Early Golden Surprise. Excellent
seeders, and sure to ripen. Bu. \$3.25; Five bushels or
more, \$3.00 per bu. Also RENAISSANCE Seed Rais,
Oklahoma, Bartlett, March, Soy Beans, Buckwheat,
Soy Potatoes, Alfalfa, Clover and Grass seeds. Write
for samples and circulars.
THEO. BURT & SONS, Box 50, MELROSE, OHIO

The High Cost of False Economy

TWENTY potato growers took losses averaging \$10. per acre, while one neighbor realized a net profit of \$95. per acre, because he sprayed well and often, despite the probability of a low potato market. Neglect of adequate spraying—wet or dry season—high or low market—is the most short-sighted form of economy a grower can practice. It is equally short-sighted to try to save a cent or two on Copper Sulphate (Blue Vitrol) and risk a weak mixture, due to excess of dirt and other inert matter. Make sure your Bordeaux Mixture is correctly proportioned, whether you employ the Standard method or the new "instant" method of preparing it, by using only

Nichols Triangle Brand Copper Sulphate "Blue Stone"

Large and small crystals, Powder and "Snow" (Minute Crystals)
Write for free booklet on preparation and use of Bordeaux Mixture with
directions for preparing "instant" Bordeaux.

Nichols Copper Co.
46 Wall St. New York
230 N. Michigan Ave. Chicago

HORTICULTURE

By S. W. FLETCHER

Peaches Fall

Where can I get information on the care and spraying of half a dozen peach trees which bear but the peaches fall off before ripe?
Mrs. Raymond Snyder,
York county, Pa.

AN efficient and economical method of protecting a few trees in the home orchard from insect pests and diseases has not yet been developed. One method would be to employ a commercial grower to spray these trees, but this would be quite expensive. You can buy a small, hand sprayer, mounted like a wheelbarrow, with a hose, rod and nozzle. This answers the purpose fairly well for the small home orchard. Another, and perhaps a better method, since you are concerned chiefly with peaches, is to buy a small hand duster and apply the chemicals in dust form. The regular commercial spraying or dusting schedule need not necessarily be followed in all respects.

In general, your peaches should have a spray of lime-sulphur solution, dormant strength, in early spring (usually before March 15); and several sprays of self-boiled lime sulphur and arsenate of lead, beginning immediately after the blossoms fall. If a dust is used, it should be of sulphur and arsenate of lead. Your county agent can advise you in detail on equipment materials to use and time of application.

Frost Injury

Will you please tell us what is the trouble with three apple trees we have? They bloom every spring, but no fruit stays on. They are planted near a pond. We have sprayed them. F. D. Elk county, Pa.

THIS may be due to annually recurring frost injury to the blossoms; apple trees planted "near a pond" are likely to be on a frosty site. There is no practicable remedy for this.

It may be due to the attack of fungous disease, particularly apple scab. Have you given each year the several sprays necessary for the control of apple scab? This involves, in general, the use of a lime-sulphur spray before the blossoms open, immediately after the petals fall, and perhaps twice thereafter.

If you are satisfied that neither frost nor disease are responsible, you may suspect that the trouble is lack of cross pollination. Top grafting some of the limbs with other vari-



H. C. Keptinger of Grant county, Virginia, finds sugar making possible work.

eties, blossoming at the same time may remedy this.

If the trees are young you need not be disturbed; young trees often do not set fruit, though blossoming.

Bitter Pit

We have about 750 apple trees of various ages from one year old to 45 years. We have been spraying for the past 10 years. Last year we had about 100 bushels of apples that were ruined with bitter pit and apple maggot.

Would you cut these trees off about six inches above the ground and put a new top or will the whole tree be from life effects?
W. M. Bradford county, Pa.

THERE is no practicable preventive for bitter pit. Some varieties, as Baldwin, are more susceptible than others. It is more likely to occur on young, rapidly growing trees than on mature trees; and in a season, like last summer, than in a season of normal rainfall. Over-irrigation favors it. You should be able to control the maggot, however, with arsenical sprays and other measures.

Cranberry Disease

RESPONSIBILITY for the spread of false blossom, a serious cranberry disease which threatens to New Jersey's extensive cranberry industry, rests with the tiny, bluish-ed leafhopper, according to entomologists at the State Experiment Station.



This three-row potato planter was put in operation in Chester county, Pa., this spring. In a test it planted an acre in 38 minutes. It is set to plant ten inches in 30-inch rows.

Note the deep planting and shallow covering, sometimes called "W" or truck planting. This scheme is used by many of the 400-bushel potato growers.



it saves you money!

No single feature of the new Chevrolet Six is praised more highly than its outstanding economy—for in spite of its greater power and finer all-round performance—*this new Six saves you money every mile you drive!*

From first cost to re-sale value—it pays to own a Chevrolet.

With a base price of \$495, f. o. b. factory, the Chevrolet Six is one of the world's lowest priced automobiles—actually in the price range of a four-cylinder car. And this initial economy is emphasized over and over again as the months and the miles go by.

Exceptionally high gasoline mileage! Oil economy that never ceases to amaze you! Dependability in every part that reduces your service requirements to the minimum! Long life that far exceeds

the demands of the average owner! And standardized service available everywhere—with low flat-rate charges to cover every operation!

Purely on the basis of economy—the Chevrolet Six is the logical car to own. But when you consider what it gives you *in addition to* economy—in six-cylinder performance, in beautiful Fisher bodies, in greater comfort, safety and handling ease—its choice becomes imperative, if you seek *value*.

See your Chevrolet dealer today. He will gladly give you a demonstration of this wonderful Six.

CHEVROLET MOTOR COMPANY, DETROIT, MICHIGAN
Division of General Motors Corporation

The New CHEVROLET SIX at greatly reduced prices!

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| Roadster..... | \$495 |
| Phaeton..... | \$495 |
| Sport Roadster..... | \$555 |
| Coach..... | \$565 |
| Coupe..... | \$565 |
| Sport Coupe..... | \$655 |
| Club Sedan..... | \$625 |
| Sedan..... | \$675 |
| Special Sedan..... | \$725 |
| Wire Wheels Standard | |
| Sedan Delivery..... | \$595 |
| Light | |
| Body Chassis..... | \$365 |
| 1½ Ton Chassis..... | \$520 |
| 1½ Ton..... | \$625 |
| Body with Cab..... | |
| Roadster Delivery..... | \$440 |
| (Pick-up Box Extra) | |

All prices f. o. b. factory
Flint, Michigan

A SIX IN THE PRICE RANGE OF THE FOUR

Don't let YOUR CROPS get Indigestion

CROPS get indigestion just as humans do, when they eat the wrong food. Can't eat and don't grow right. Feed them Chilean Nitrate of Soda and watch their joyous response. Roots suck it up quickly. Plants get new vigor. Grow faster. Give greater yield.

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Asparagus Plants
Full of vigor. Best kinds for home and market. 25 Washington, 25 Jersey, 25 Jersey, 25 Jersey. \$1.00, postpaid. 100 Plants, \$5.00. Write for catalog of Garden Tools, Perennials, Trees, Shrubs, Plants, etc. **FRAGARIA NURSERY**, Box 270, Pulaski, N. Y.

KINKADE GARDEN TRACTOR
and Power Lawnmower. A Practical, Proven Power Cultivator for Gardeners, Suburbanites, Truckers. Florida Nurseries, Fruit Growers. New Low Prices! Easy Terms. American Farm Machine Co., 1005 Broadway, S.E., Minneapolis, Minn.

Offer for Spring Planting—
APPLE, PEACH, PEAR, PLUM and CHERRY TREES in large assortment. All of the new and standard commercial varieties. Grapes, Vines, etc. Strawberry, Raspberry, and Blackberry. Plants in large assortment. Largest growers for the commercial orchardist in the East. All varieties propagated from select orchard bearing trees. New Spring 1930 Catalog in colors now ready. It is free—write for it. **BOUNTIFUL RIDGE NURSERIES**, Box C, Piquette Ave., Mt. Pleasant, Ohio. This advertisement will appear every two weeks.

Seed Corn
Early Clarence and Early Golden Surprise. Excellent yielders and sure to ripen. Bu. \$2.25. Price bushels or more \$3.00 per bu. Also **SELECTION** Seed Oats, Bluebird, Harbinger, Mammoth, Soy Beans, Buckwheat, Seed Potatoes, Alfalfa, Clover and Grass seeds. Write for samples and circular. **WHEO, BURT & SONS**, Box 50, Melrose, Ohio.

The High Cost of False Economy

TWENTY potato growers took losses averaging \$10. per acre, while one neighbor realized a net profit of \$95. per acre, because he sprayed well and often, despite the probability of a low potato market. Neglect of adequate spraying—wet or dry season—high or low market—is the most short-sighted form of economy a grower can practice. It is equally short-sighted to try to save a cent or two on Copper Sulphate (Blue Vitrol) and risk a weak mixture, due to excess of dirt and other inert matter. Make sure your Bordeaux Mixture is correctly proportioned, whether you employ the Standard method or the new "Instant" method of preparing it, by using only

Nichols Triangle Brand Copper Sulphate "Blue Stone"

Large and small crystals, Powder and "Snow" (Minute Crystals). Write for free booklet on preparation and use of Bordeaux Mixture with directions for preparing "Instant" Bordeaux.

Nichols Copper Co.
40 Wall St. New York
230 N. Michigan Ave. Chicago

HORTICULTURE

By S. W. FLETCHER

Peaches Fall

Where can I get information on the care and spraying of half a dozen peach trees which bear but the peaches fall off before ripe?
Mrs. Raymond Snyder,
York county, Pa.

AN efficient and economical method of protecting a few trees in the home orchard from insect pests and diseases has not yet been developed. One method would be to employ a commercial grower to spray these trees, but this would be quite expensive. You can buy a small, hand sprayer, mounted like a wheelbarrow, with a hose, rod and nozzle. This answers the purpose fairly well for the small home orchard. Another, and perhaps a better method, since you are concerned chiefly with peaches, is to buy a small hand duster and apply the chemicals in dust form. The regular commercial spraying or dusting schedule need not necessarily be followed in all respects.

In general, your peaches should have a spray of lime-sulphur solution, dormant strength, in early spring (usually before March 15); and several sprays of self-boiled lime sulphur and arsenate of lead, beginning immediately after the blossoms fall. If a dust is used, it should be of sulphur and arsenate of lead. Your county agent can advise you in detail on equipment materials to use and time of application.

Frost Injury

Will you please tell us what is the trouble with three apple trees we have? They bloom every spring, but no fruit stays on. They are planted near a pond. We have sprayed them. F. D. Elk county, Pa.

THIS may be due to annually recurring frost injury to the blossoms; apple trees planted "near a pond" are likely to be on a frosty site. There is no practicable remedy for this.

It may be due to the attack of fungous disease, particularly apple scab. Have you given each year the several sprays necessary for the control of apple scab? This involves, in general, the use of a lime-sulphur spray before the blossoms open, immediately after the petals fall, and perhaps twice thereafter.

If you are satisfied that neither frost nor disease are responsible, you may suspect that the trouble is lack of cross pollination. Top grafting some of the limbs with other vari-



H. C. Keptinger of Grant county, Virginia, finds sugar making possible work.

eties, blossoming at the same time may remedy this. If the trees are young you need be disturbed; young trees often set fruit, though blossoming late.

Bitter Pit

We have about 750 apple trees of ages from one year old to 45 years. We have been spraying for the past years. Last year we had about 100 bushels of apples that were ruined with bitter pit and apple maggot.

Would you cut these trees off six inches above the ground and put a new top or will the whole tree be from the effects?
W. M. Bradford county, Pa.

THERE is no practicable preventive for bitter pit. Some varieties, as Baldwin, are more susceptible than others. It is more likely to occur on young, rapidly growing trees than on mature trees; and in a season, like last summer, than in a season of normal rainfall. Over-irrigation favors it. You should be able to control the maggot, however, with arsenical sprays and sanitary measures.

Cranberry Disease

RESPONSIBILITY for the spread of false blossom, a serious cranberry disease which threatens to New Jersey's extensive cranberry industry, rests with the tiny, blunted leafhopper, according to entomologists at the State Experiment station.



This three-row potato planter was put in operation in Chester county, Pa., this spring. In a test it planted an acre in 38 minutes. It is set to plant ten inches in 30-inch rows.

Note the deep planting and shallow covering, sometimes called "mound" or truck planting. This scheme is used by many of the 400-bushel potato growers.



Every mile— it saves you money!

No single feature of the new Chevrolet Six is praised more highly than its outstanding economy—for in spite of its greater power and finer all-round performance—this new Six saves you money every mile you drive!

From first cost to re-sale value—it pays to own a Chevrolet.

With a base price of \$495, f. o. b. factory, the Chevrolet Six is one of the world's lowest priced automobiles—actually in the price range of a four-cylinder car. And this initial economy is emphasized over and over again as the months and the miles go by.

Exceptionally high gasoline mileage! Oil economy that never ceases to amaze you! Dependability in every part that reduces your service requirements to the minimum! Long life that far exceeds

the demands of the average owner! And standardized service available everywhere—with low flat-rate charges to cover every operation!

Purely on the basis of economy—the Chevrolet Six is the logical car to own. But when you consider what it gives you in addition to economy—in six-cylinder performance, in beautiful Fisher bodies, in greater comfort, safety and handling ease—its choice becomes imperative, if you seek value.

See your Chevrolet dealer today. He will gladly give you a demonstration of this wonderful Six.

CHEVROLET MOTOR COMPANY, DETROIT, MICHIGAN
Division of General Motors Corporation

The New CHEVROLET SIX

at greatly
reduced prices!

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| 7 Sport Roadster..... | \$555 |
| 7 Coach..... | \$565 |
| 7 Coupe..... | \$565 |
| 7 Sport Coupe..... | \$655 |
| 7 Club Sedan..... | \$625 |
| 7 Sedan..... | \$675 |
| Special Sedan..... | \$725 |
| Wire Wheels Standard | |
| Sedan Delivery..... | \$595 |
| Light | |
| Delivery Chassis..... | \$365 |
| 1 1/2 Ton Chassis..... | \$520 |
| 1 1/2 Ton | |
| Chassis with Cab..... | \$625 |
| Roadster Delivery..... | \$440 |
| (Pick-up Box Extra) | |

All prices, f. o. b. factory
Flint, Michigan

A SIX IN THE PRICE RANGE OF THE FOUR

"Let's take the
children on a picnic"
says Mrs. Fox

"Let's stay
at home and rest"
says Mrs. Fox



More vigor per spoonful... GRAPE-NUTS

HOW often a woman's vitality is like a see-saw. Now up! Now down! One side says "let's go places, and have a good time." The other side says "let's not—it's just too much trouble."

How we welcome the days when our vitality is brimming over—when even our daily duties are faced light-heartedly and zestfully. For these are the days when vigor and energy make every hour bright with the joy of living.

Why doesn't every day bring us this feeling of eager vivacity? What's wrong when we're low-spirited and apathetic—when we can't pull our-

selves together to do the things we'd like to do?

Look for an answer in the food you eat. For food, day by day, must rebuild the body and recharge it with vital energy. And only the right kind of food can do the right kind of job!

If you want all-around health, exuberant energy and vitality, see to it that your food, every day, gives you all the building, energizing elements your body needs.

There is one food long known for the contribution it makes to building and fueling the body—a food which gives us a tremendous amount of energy in proportion to the amount eaten. This food is Grape-Nuts—purposely designed to give you the nourishment that produces healthful vigor, buoyant energy—and to give it to you in a form that is temptingly delicious.

Grape-Nuts is made of choice wheat and malted barley. It is abundant in dextrins, maltose and other carbohydrates, the chief producers of energy.

In addition, Grape-Nuts provides vital elements often lacking in the modern diet—iron, for the blood; phosphorus for teeth and bones; proteins for muscle and body-building; and the essential vitamin-B, a builder of appetite.

And Grape-Nuts invites eating. Its golden-brown

kernels, tinged with purest malt sugar, are crisp and crunchy. Not only does this crispness add deliciousness—it also encourages thorough chewing to help digestion. And gives to teeth and exercise they need to remain sound and healthy.

Start now to make breakfast build vital health and energy for you. Buy Grape-Nuts today for breakfast tomorrow! Your grocer sells Grape-Nuts—a Product of General Foods Corporation. Or send coupon below for free trial offer.

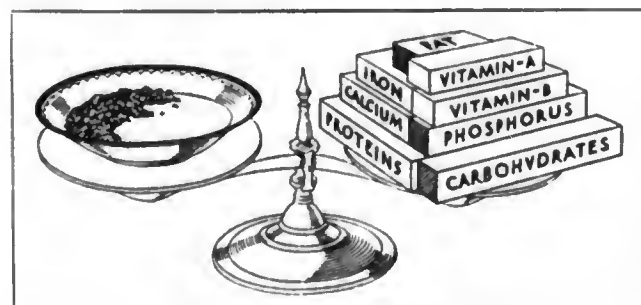
"There's
a Reason"



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POSTUM COMPANY, Inc., Battle Creek, Mich.
Please send me, free, a trial package of Grape-Nuts, and the free booklet—"Happier Days from Better Breakfast"—"Civilized Teeth and How to Prevent Them."

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In Canada, address GENERAL FOODS, Ltd.,
Sterling Tower, Toronto 2, Ontario



GRAPE-NUTS MAKES THE SMALL BREAKFAST SAFE
A single serving of Grape-Nuts with cream provides more varied nourishment than many a hearty meal. Add Grape-Nuts to your breakfast.



You'll never know how delicious some dishes can be . . . until you make them with GRAPE-NUTS

THE SAME delightful flavor that has made Grape-Nuts the breakfast choice of millions—also adds zest and variety to many delicious luncheon and dinner dishes.

Use Grape-Nuts in some of your favorite recipes. Or for sprinkling on other dishes. And be sure to try the special Grape-Nuts recipes below.

Thousands of women have found that these tempting dishes bring pleased comments from the entire family. We're sure you will, too.

GRAPE-NUTS MOCK HAMBURG STEAK

- 1 cup lentils
- 1 cup Grape-Nuts
- 2 onions, grated
- 1 teaspoon salt
- 1 teaspoon powdered sage
- 1 tablespoon melted butter
- 2 eggs, well beaten

Soak lentils in water overnight. Cook in same water until soft. Drain and force through sieve. Add other ingredients in order given and mix thoroughly. Place by tablespoons in hot greased frying-pan. Flatten with spoon into cakes and brown on both sides. Serve with brown gravy or tomato sauce. Serves 6. (All measurements are level.)

GRAPE-NUTS BAKED CUSTARD

- 1 cup sugar
- 1/8 teaspoon salt
- 1/2 teaspoon vanilla
- 2 cups milk
- 2 eggs, slightly beaten
- 5 tablespoons Grape-Nuts

Add sugar, salt, vanilla, and milk to eggs. Strain. Put 1 tablespoon Grape-Nuts in each custard cup and pour in custard mixture. Place cups in pan of hot water. Bake in moderate oven (350° F.) 35 minutes, or until a knife inserted comes out clean. Serves 5.

GRAPE-NUTS ICE CREAM

- 1 tablespoon flour
- 1/2 cup sugar
- 1/8 teaspoon salt
- 1 egg, slightly beaten
- 2 cups milk, scalded
- 1 cup cream
- 1 tablespoon vanilla
- 1/2 cup Grape-Nuts

Combine flour, sugar, and salt. Add to egg. Pour small amount of milk over egg mixture, stirring vigorously. Return to double boiler and cook until thickened, stirring constantly. Cool. Add cream and vanilla. Freeze. When partly frozen, add Grape-Nuts. Continue freezing until firm. Serves 6.

GRAPE-NUTS STUFFED CARROTS

- 8 medium-sized carrots, cooked
- 1/4 cup grated cheese
- 1/2 cup Grape-Nuts
- 2 tablespoons green pepper, chopped
- 1 tablespoon milk
- 1/4 teaspoon salt
- 1/8 teaspoon pepper
- 1 1/2 cups cooked rice

Hollow out one side of each carrot. Remove thin slice from other side so that it will rest firmly in pan. Add cheese, Grape-Nuts, green pepper, milk, and seasonings to rice. Stuff carrots with mixture. Place in greased baking dish. Bake in hot oven (400° F.) 20 minutes, or until brown. Garnish with parsley. Serves 4.

© 1930, G. F. Corp.



Why six farmers changed their orders to Mobiloil

What an Oklahoma tractor dealer discovered about quality lubrication and tractor economy

The agents for a well-known tractor in a thriving Oklahoma town also supply lubricating oil to most of the farmers purchasing machines from them. Two brands are carried—Mobiloil, and a cheaper oil.

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NOTE: For a season's supply we recommend the 55-gallon or 30-gallon drum with convenient faucet.

VACUUM OIL COMPANY

Makers of high quality lubricants for all types of machinery



Mobiloil

May 3, 1930

PENNSYLVANIA FARMER

(647) 21

Garden and Truck Crops

By GILBERT S. WATTS

Red Raspberries

I have quite a nice patch of Latham red raspberries. Last fall I used horse and cow manure heavily in the rows. This spring I expect to use sheep and chicken manure. Can I use this too strong? What fertilizer should I use with this manure? D. H. M. Snyder county, Pa.

PROBABLY the most important soil factor in securing profitable yields of red raspberries is a liberal supply of organic matter.

If growth last year was heavy I would question the advisability of using sheep or chicken manure except as a very light top-dressing. Enough nitrogen for vigorous growth but not sufficient to cause a weak, sappy growth late in the season is a good rule.

Some growers feel that a spring application of a few hundred pounds per acre of a complete fertilizer is advisable. G. S. W.

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EVEN with the most skillful commercial growers head lettuce is inclined to be an uncertain crop throughout most of this state. Apparently we too frequently experience the combination of high temperatures and high humidity and much of our soil is not of an ideal lettuce type.

In general your chances of success will be best if you attempt to grow head lettuce as an early spring crop or as a late fall crop, sowing about July 15 to 25. Select a fertile soil and do not apply commercial fertilizers too heavily, especially if very strong in potash. G. S. W.

Cucumbers Fail

I want some advice on raising cucumbers. Last year I had lovely vines and they began to blossom and then they began to wither and dry up, one by one, until they were all dead. We got very few cucumbers and they were not nice. Mrs. C. E. Kelsey, Jefferson county, Pa.

YOUR failure with cucumbers last year was no exception. Very few satisfactory crops were produced in gardens or truck patches.

The important details in cucumber growing are to plant in a fertile soil that contains an abundance of organic matter, to keep insects under control—they not only do direct damage but spread disease on their mouth parts, and to thin out the surplus young plants before crowding begins.

I hope you may have a full crop this year. G. S. W.

Worms in Radishes

Will you please inform me what causes radishes to be so badly infested with little worms? Also tell me what the ground should be treated with in order to produce good results with early radishes. Would like to know the most desirable variety to plant early. Are the white radishes preferred to the red ones?

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WORMY radishes are caused by the cabbage maggot. In a wooden or earthen vessel dissolve one ounce corrosive sublimate in eight gallons of water. Pour this into the soil close beside the young radish or cabbage plants, using enough solution to saturate the soil. Repeat at ten-day intervals, making three applications in all.

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commercial fertilizer rich in nitrogen. Early Scarlet Globe is the variety grown most widely. White radishes usually sell well if you can get them a pure, bright white, a thing that is not easy except in light soils.

Danish Ballhead (Short Stem) is the best winter keeping cabbage, but is not as tender as Enkhuizen Glory, a variety that may be kept until the New Year, or a little later under favorable conditions. Sow Danish seed the middle of April, Enkhuizen for winter use two or three weeks later. Sow outdoors.

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THE MARKET PLACE

By W. R. WHITACRE

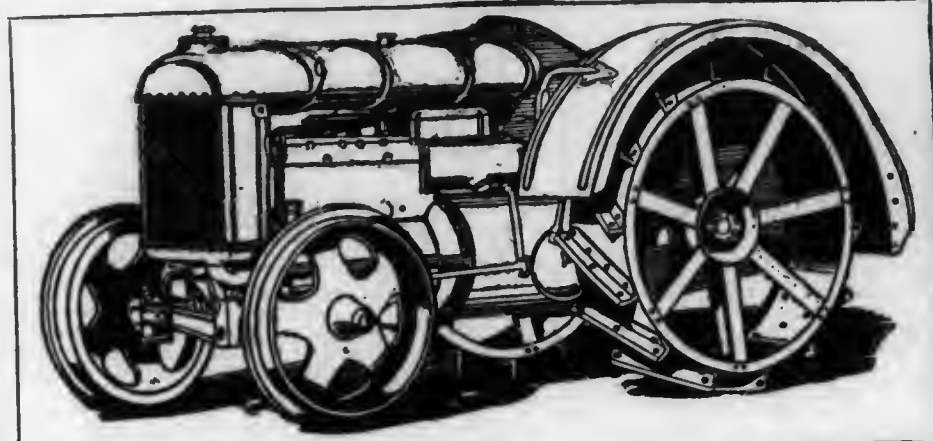
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There is a brighter side to the situation that has often been overlooked. For instance, this season there is a liberal supply of asparagus of excellent quality on the market from South Carolina and California. It is selling at prices that are within the reach of the average family, and it is being featured by chain stores and the smaller produce stores throughout the city.

I believe this is a benefit to the nearby producer, since people get the "asparagus habit." When New Jersey and Pennsylvania begin to ship freely they will continue to buy and while the extra high prices will probably not be realized, the average for the season is likely to be better. A reasonable price for good goods means more consumers while the higher price means that fewer people can afford to purchase. The people who can afford to buy out-of-season products and pay high prices for them are in the minority, their tastes are fickle and they cannot be counted on as a real outlet when things are plentiful.

Last season's strawberry season was an excellent illustration of this idea. The season opened with liberal supplies of good berries at fair prices and there were few extremely high or low prices. One essential to this idea is that the first produce shall be of good quality, a good buy. One trouble with the peach crop in New Jersey in late years has been the fact that it opened with such varieties as Greensboro that cannot be considered desirable from any point of view. In this case the inferior fruit comes on the market at the same time that the cream of the Southern crop is offered, which further complicates the problem.

Fordson



Features of the Improved Fordson

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| 1 More Power | 10 Hot Spot Manifold |
| 2 Easier Starting | 11 Heavy Fenders and Platform—Standard Equipment |
| 3 New Cooling System | 12 Sixteen Plate Transmission Brake |
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G. M. STULL COMPANY,
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"The best corn in the locality"

That's what Carrie Neff, R. No. 2, Doonville, N.Y., grew after treating seed corn with Stanley's Crow Repellent. "The crows," writes Carrie Neff, "did not pull the corn. They ate the grubs and other corn enemies, instead." Thousands of other up-to-date farmers use Stanley's Crow Repellent to keep crows, moles, gophers, chucks, squirrels, etc., from pulling the seed-corn. It will not injure the seed or clog planter. Non-poisonous. But sure to keep pests out of fields. If your hardware, drug or seed store can't supply, address The Cedar Hill Formulae Co., New Britain, Conn. Box 500 R.

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Quality Service Satisfaction
HIGH GRADE FERTILIZERS
READING MEAT MEAL
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A Powerful Tractor for Small Farms, Gardeners, Florists, Nurseries, Fruit Growers and Poultrymen.
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Mowing, Plowing, Cultivating, Raising Equipment
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STANDARD ENGINE COMPANY
Minneapolis, Minn. Philadelphia, Pa. New York, N.Y.
3271 Como Ave. 525 Chestnut St. 184 Cedar St.



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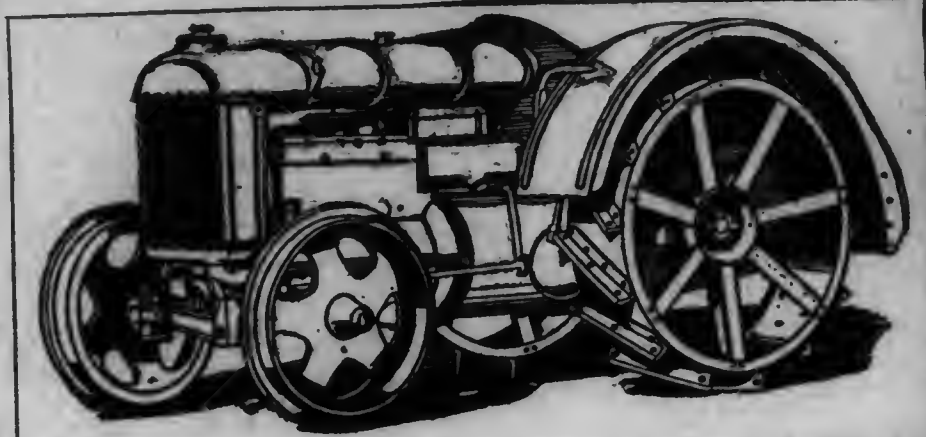
YEARS ago when our markets depended on nearby sections for their supplies, the earliest produce was the most profitable. The first bunches of asparagus of the season sold as high as \$1 or more a bunch and other vegetables brought relatively high prices. The development of market gardening in the South and the improvements in transportation brought these vegetables to the northern markets far in advance of home-grown products. The growers in the North complained that they were unable to obtain as high prices early in the season as in former years.

There is no doubt that this is true, but there is a brighter side to the situation that has often been overlooked. For instance, this season there is a liberal supply of asparagus of excellent quality on the market from South Carolina and California. It is selling at prices that are within the reach of the average family, and it is being featured by chain stores and the smaller produce stores throughout the city.

I believe this is a benefit to the nearby producer, since people get the "asparagus habit." When New Jersey and Pennsylvania begin to ship freely they will continue to buy and while the extra high prices will probably not be realized, the average for the season is likely to be better. A reasonable price for good goods means more consumers while the higher price means that fewer people can afford to purchase. The people who can afford to buy out-of-season products and pay high prices for them are in the minority, their tastes are fickle and they cannot be counted on as a real outlet when things are plentiful.

Last season's strawberry season was an excellent illustration of this idea. The season opened with liberal supplies of good berries at fair prices and there were few extremely high or low prices. One essential to this idea is that the first produce shall be of good quality, a good buy. One trouble with the peach crop in New Jersey in late years has been the fact that it opened with such varieties as Greensboro that cannot be considered desirable from any point of view. In this case the inferior fruit comes on the market at the same time that the cream of the Southern crop is offered, which further complicates the problem.

Fordson



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| 5 New Ignition System | 14 Shock Absorbing Front Coil Spring |
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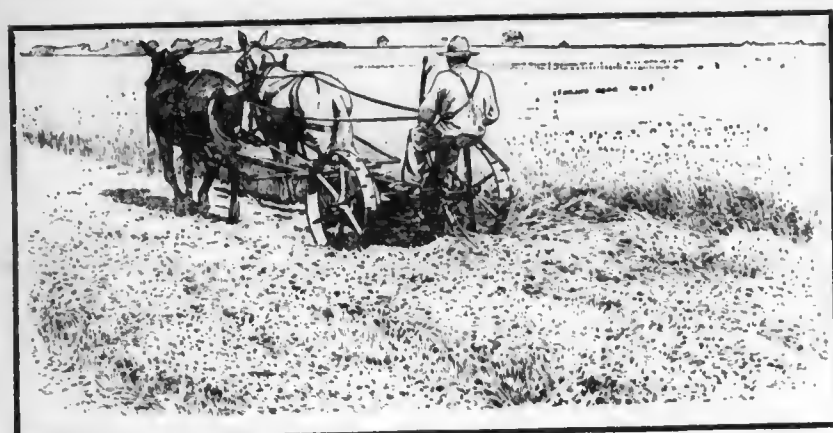
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The John Deere mower has proved its ability to do better work and last longer. Owners in your community will tell you about its satisfactory performance. They will tell you it handles easier because of the high, easy lift. They'll tell you it's lighter in draft—easier on the horses.

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Wheeling

When writing advertisers please mention Pennsylvania Farmer



The general-purpose tractor works very well in this potato field where the rows are spaced 34 inches apart. The wheels are equipped with vine turners which protect the plants to perfection.

Agricultural Engineering

By R. U. BLASINGAME

THERE appears to be considerable discussion about row widths for field crops. We seem to have inherited the idea of planting corn in rows 42 inches apart and potatoes around 30 inches. I wrote to Mr. Ira Marshall, the world's champion corn grower, in Ohio, and he seems to think that corn rows can be 36 to 38 inches apart. In fact, he has made some of his big corn yields with rows less than 42 inches.

In view of the fact that general-purpose tractors are now being manufactured by five or six of the leading farm equipment manufacturers, and these tractors have proved to be a success in growing corn, oats, wheat, hay and potatoes, it appears some concession must be made in the width of rows for corn and potatoes. The wheels of these tractors can be adjusted to certain row widths; however, adjustments from 42 to 30-inch rows are considerably beyond the ability of some of them. Possibly if corn could be planted 38 inches apart it would be a more convenient shift in equipment down to 30 and 32-inch potato rows. This applies to horse-drawn equipment as well as to the general-purpose tractor.

Paint Sprayers

ON several occasions our readers have asked whether they could use potato and orchard sprayers for spraying paint on buildings.

I have taken this matter up with several of the sprayer manufacturers and they say that where their machine is equipped with an engine and will develop 300 pounds pressure the outfit can be used for whitewash and cold water paints.

They state that it will be necessary to employ a regular air compressor and special paint nozzle if oil paint is to be used.

When spraying whitewash or cold water paint the regular eight to ten-foot bamboo spray rod with a shut-off and nozzle will be satisfactory.

Care of Power Sprayers

A SPRAYER works under hard conditions. A little attention on the part of the operator to the most vital parts will greatly prolong the life of an outfit, and these suggestions are written to call attention to some parts which are frequently neglected.

Oil all moving parts at least twice a day. Be sure to keep oil in cylinders above plungers. Fill grease cups and see that they are never dry. Gears should be kept well greased.

It is important that spray material is not allowed to stand in the pump any length of time, hence it is well to plan the work so that the tank will be empty at night. If you can refill the tank without putting in spray solution or run enough water through to wash out the pump, hose and nozzle thoroughly, it will do a great deal to prevent destructive corrosion.

The oil in the engine ought to be changed at least every three days. At the same time you should take time enough to examine the whole machine carefully and see that no parts are loose. A spray pump works at a tremendous strain and a loose bolt or bearing might cause serious damage. The eccentricities must be kept tight and the connecting rods must be tight where they attach to the eccentric straps.



PANBREAKER

This is the companion tool to the cover crop disk shown in last week's paper. It can be run down to 12 or 15 inches deep without turning up clay. It follows the cover crop disk and is especially adapted to preparing loose seedbeds for potatoes. It will break up a "hard-pan" and pull out stones which are plow depth, if they are loose. It is taking the place of plowing in some sections.

Mr. Peaslee on Antiques

By FRANK K. RICH

"SUMMER'S about here," observed Deacon Hyne, watching a wagon loaded with ancient furniture slowly dragged along the dusty road; it was driven by a thin, fox-faced man who bent low over the dash-board and clucked incessantly to the horse. "Ephraim Gannet's got another load of broke-down furniture that'll be 'antiques' by the time the summer folks git here," he added. "It beats me, sometimes, to see how he manages to sell that stuff for the prices he does. He gits come up with once in awhile, though," Caleb grinned. "Seem 'sif luck works ag'in him sometimes, when he gits too graspin'."

Though the deacon did not speak, knowing it to be unnecessary, he looked up and Caleb answered the look.

"There's quite a number of things to keep in mind while I'm tellin' you this," he directed, "and one of 'em is that the hoss Gannet's drivin' now used to belong to Clem Brown; and Clem's wife is related to old lady Belknap; and Clem's wife takes boarders; and the summer boarders buy the heft of the things Gannet picks up to sell at big prices. You know all them things, but just don't forget 'em."

Almost Destitute

"Old lady Belknap," he went on, "belongs to one of them old families that used to have lots of prop'ty and big families, and now ain't got much left of either of 'em. I guess that old place and what housin'-stuff there is in it is about all that's left of a considerable big prop'ty. One thing sure, she never lays out a dime that she ain't sure of gittin' ten cents value—and I've seen her finger a quarter and countin' with her lips for five minutes b'fore she c'd spend it. Kind of pitiful, it is."

"If it wa'n't she needed money the bitterest way she'd never part with a stick of them old pieces of furniture, never in the world. But bein' the next door to destitute, when Gannet was up there one day and offered her fifteen dollars for that big side-board that has sot in the dining-room for seventy-five years I s'pose she must have figgered in her mind what that money would do for her, anyway, she said she'd think it over."

"When Gannet makes an offer of fifteen dollars for anything it means he's got a chance to get twice or three times that for it; and in this case it was that woman that a buildin' the big house on Marr's Hill. She wants all the real good old stuff she c'n git to furnish it. So she'd been to Gannet."

What Could He Say?

"Now this woman is boardin' at Clem's what time she's here, 'til her own house gits fur 'nough along to move into, and old lady Belknap drops in to Clem's once in awhile, to speak to Clem's wife, bein' a relation—I s'aid in the fu'st place."

"Wal, a couple of days after Gannet made his han'some offer, he'n that boy of his went along up to the Belknap place. The old lady was out; but the house was unlocked, so he went in. And not findin' her, he kind of took charge of things and without waitin' to find out what she'd made up her mind to do, he loaded the side-board on—and then, bein' as nosy as a fox, he went back into the house and went to pryin' 'round to see if he c'd light on somethin' else he c'd offer her little or nothin' for and make a good thing himself. And while he was doin' that, the hoss started and walked away, the wheels makin' no noise on the grass."

"Now here's where buyin' the hoss of Clem comes in; goin' off free, with nobody to rein it, there's where the hoss p'inted fer—and when he got there, out on the porch was Clem's wife, and the boarder—and old lady Belknap."

"Near 's I git it, the boarder wom-

an was the fust to see it when the hoss turned into the yard. She says: 'I do b'lieve Mr. Gannet's got my side-board I told him I wanted, and he's brought it here—but where is he, I wonder?'"

"And then Miss Belknap spoke up. 'I d'know where Gannet is,' she says, 'but I do know he ain't got your side-board; he's got mine; he offered me fifteen dollars for it, but I made up my mind not to sell; and I want to how it came to be on his wagon!' she says."

"When she said that the boarder woman like to fainted in her chair. 'Why,' s'she, 'he told me he'd have to git a hund'ud and twenty-five for it. What's the man thinkin' of?'"

"He was thinkin' of Gannet!" Miss Belknap snaps out. "But I won't sell that sideboard to him now if he offers me all he was callatin' to git for it—old robber!"

"That made the summer woman look kind of down-fallen for a minute, but she's one that gits her own way, I sh'd say, so she says: 'Look here! Will you sell it to me? That'll hurt him worse than anything you c'd do to him.' And after a little pleadin' Miss Belknap done it, and got the full price the woman was goin' to pay Gannet."

"And then, jest as the woman was payin' it over, and Clem and his hired man was unloadin' the side-board off'n the wagon, Gannet come footin' it along in a hurry."

"I wisht I c'd have been there," Caleb said wistfully. "It must have been well w'uth listenin' to. Gannet didn't get to say much, but Miss Belknap was threatenin' him with the law for enterin' her house and the summer woman was promisin' him to spread his prices around amongst her friends—so he got on his wagon and went away."

"Not that I figgered he c'd have found a gre't sight to say!" Caleb concluded happily.

Buddy Poppies

APPROXIMATELY 50,000 poppies are being made each week by the disabled ex-service men patients in U. S. Veterans' Hospitals throughout the country in preparation for the annual Buddy Poppy Sale of the Veterans' National Poppy Chairman of the organization.

"All the Buddy Poppies used in our national sale, held each year during the week of Memorial Day, are made by disabled and needy ex-service men," said Captain Handy. "The Veterans of Foreign Wars inaugurated this method of manufacture six years ago with the cooperation of the United States Veterans' Bureau, and the local Veterans' Hospitals are only two of a number of government hospitals throughout the country in which the Buddy Poppies are made each year."

"Buddy Poppy" is the name chosen by the men themselves and each flower carries a copyrighted label which guarantees it to the public. The entire proceeds of the sale, which last spring reached a national total of approximately 6,000,000, are devoted to welfare and relief work for ex-service men and their families, including an allotment to our National Home for Widows and Orphans of Ex-Service Men."

On Johnny's return to school after being away several weeks the teacher told him that he must bring a written excuse from one of his parents. The next day he presented this note from his mother:

Dear Teacher: Please excuse Johnny for being out of school for the last three weeks. He fell from a tree and broke his arm. By doing the same you will oblige, (Mrs.) Jennie Jones.

Pyrox Pays Better than Home-Mixed Sprays, Grower Says

IN comparative tests, hundreds of successful growers have proved that Pyrox is not only easier and safer to use than messy home-made bordeaux mixtures—but is also cheaper. Pyrox-protected potatoes pay extra cash from extra yields of better quality.

The experience of Mr. C. S. Newcomer of Chambersburg, Pa., is typical of the results obtained by Pyrox users. He writes:

"This season I made a test comparing Pyrox with home-made bordeaux. Seed, fertilization, cultivation and soil conditions were the same. However, my yield on Pyrox-sprayed plots was 385 bushels per acre, an increase of 70 bushels over the plots sprayed with home-made bordeaux which yielded only 315 bushels per acre."

"Pyrox is easy to use—I need but a few minutes to put the material in the spray tank and I am ready to spray. There is no nozzle trouble. Pyrox stays on the vines through hardest rains, and goes farther. Because of its soft, smooth, creamy fineness Pyrox will go through small holes in the nozzle disc resulting in greater ease in developing and maintaining pressure."

"My Pyrox-sprayed potatoes will show, at \$1.00 a bushel, at least \$70.00 more per acre. They are more uniform in size, smoother and cleaner in appearance than those sprayed with home-made bordeaux."—C. S. NEWCOMER.

Gets 15¢ to 20¢ per bu. Above Market Price

Mr. H. C. Rineard, of York, Pa., writes:

"I raise large acreages of corn, potatoes, wheat and hay so I must make all my labor count. That is one reason why I like Pyrox—because of its ease of preparation and application



Mr. C. S. Newcomer of Chambersburg, Pa.

as compared with home-made bordeaux.

"This is my second year using Pyrox and I certainly find that it gives me the control of insects and disease on my potatoes, and also improves the quality. I have been getting an increase of 100 bushels per acre, and an average of 15 to 20 cents per bushel better than the prevailing shipping price for my Pyrox-sprayed potatoes."—H. C. RINEARD & SON—November 6, 1929.

At \$1 a bu., Mr. Rineard's extra profit obtained with Pyrox amounted to \$100 per acre! And this is in addition to the extra price obtained per bushel.

Pyrox kills bugs, controls blights, and other diseases, and stimulates plant growth. It is quick and easy to use. Sprays in a fine mist—does not clog nozzles. Sticks like paint to plants, even through severe storms. Now lower priced than in 31 years.

Write us for facts which prove that you can actually cut your production costs—get more profit from your potatoes—by spraying with Pyrox. Please mention your potato acreage.

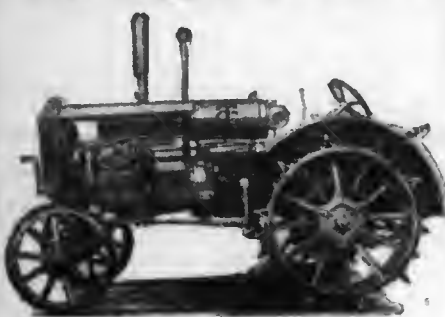
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A TWO-PLOW TRACTOR adapted to all classes of farm work, has a wide range of usefulness—for drawbar and belt power operation.

Economical—Powerful

Has more good features than any other tractor, some of which are three speeds forward, thermostatic engine temperature control, oil filter, two air cleaners, pressure oiling system, Bosch magneto. Operates with gasoline, kerosene or distillate.

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Penn. hog raisers are saving feed wastes once and forever with the famous **Exonox** Feeder. Quickly says to feed pigs balance, even ration, with Exonox. Exonox is a powerful, safe, clean, and easy to use. It is the only feed supplement that does the job. Write for circular and our direct foreign prices.

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A horse with heaves can't do his full share of work. Get rid of the heaves and you will have a horse worth his full value in work or in money. Send today for **FLEMING'S NUMBER 6 POWDER** to build up run down horses. **OUR BIG NEW VETERINARY** Heaves, tells about new treatment for many diseases. Send for free literature for any kind of Veterinary Advice.

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Hauck Mfg. Co., 118 Tenth St., Brooklyn, N.Y.



Big team hitches are time and labor savers on many farms in the Middle West. E. T. Robbins of the University of Illinois has written a bulletin describing these hitches and showing their advantages.

The Story of Woodbine Farm

By W. D. ZINN

(Continued from last week.)

AFTER Mr. Agee had watched me a few days, he said: "Mr. Zinn, you will kill yourself if you continue as you have started. You must take more rest. Remember we are out for five weeks."

To which remark I replied: "Mr. Agee, I will be doing business after you have been laid on the shelf."

At that time Mr. Agee's health was not very good. We went on down through Tyler, Pleasants, Wood, Jackson and finally came to Roane county. One morning Mr. Agee came down from his room at a hotel in the town of Reedy and said: "Zinn, I am 'all in' and will have to go home."

"Not a bit of it, Mr. Agee," I remarked. "I will go up into Wirt and shake the bushes for the next four days and you stay here at this nice little hotel and rest until I return."

We had been having wonderful meetings everywhere and it was due in large part to his being advised to be there. I felt sure we were going to have even larger crowds down the river (which we did). I said I would call the meetings off if he did not go with me. He finally consented to rest. I went to Wirt and while the crowds were greatly disappointed, everywhere we had good meetings. On Saturday night I returned to Reedy and found Mr. Agee rested and in good trim. He continued so until we reached the end of our itinerary in Wayne county.

Mr. Agee held his audiences spell bound everywhere he went. It was on this trip I said to him: "I would rather be Alva Agee than Theodore Roosevelt." (Mr. Roosevelt was President at that time and I have always been a loyal Democrat.) Eternity will only tell the good that such men as Alva Agee have accomplished in the world.

I have but one very serious regret in thinking over my experiences in this field. I am sorry that I did not have the technical training that would have made it possible for me to do more efficient work and thus to render a greater service to the farmers and their families whom it has been my privilege to meet in these many years of institute work.

Contributor to Farm Paper

In the year 1900, by request of Alva Agee, I became an occasional contributor to The National Stockman and Farmer. A little later I was made one of its associate editors. By connection with this journal I have become acquainted with thousands of farmers, or rather, they have become acquainted with me. This, like most of my life work, has been very pleasant. One source of this pleasure has been the thousands of letters that have come to me from individual farmers. Of recent years, scarcely a letter comes that does not express the appreciation of the writer for the help I have given him. Here is a sample of many letters I have received. At the close of a two page letter in which several practical questions are asked, the writer closes as follows:

"Bro. Zinn:

"I enjoy reading your articles in The Stockman. In fact I usually turn to the 'Farm Practice' articles first. I am disappointed only when they fail to get your picture printed. Not that it's so very handsome, and yet I call it a handsome homely face, like Abraham Lincoln had. Now what tinner compliment could any American citizen wish? Well, jollity aside, I want you to know, and before you die, too, that a lot of folks whom you have never met in the flesh, appreciate your work. With all good wishes, in which Mrs. Brown joins with me, I am Truly,

N. L. Brown."

I once read of a certain king, whose subjects were wont to compliment and eulogize him. For fear he might become "puffed up" he employed a servant, whose business it was to walk behind him all during the day time, and continually whisper in his ear, "Thou art a man. Thou art a man." It has not been necessary for me to employ such a servant, for among many complimentary letters received there are a number of the other kind that take me to task for some things I have said. Thanks to those good friends. They save me from becoming vain and remind me that I am but a frail human being.

My newspaper work has brought a great deal of pleasure into my life. This has been true because my highest ambition in this work, as in all kinds of work, has been to render acceptable service. Indeed, I do not look forward with pleasure to the time when old age will force me to lay aside my pen. I remember hearing a good old deacon, a friend of mine, ask the Lord in his prayer to remove him from this "wilderness of woe" as soon as he saw fit. I thought at the time it was a very foolish thing with which to bother the Lord. For I felt sure He would do that when the time came anyway. One day this good man became very sick. He said to his son, "George, bring the doctor as soon as you can, for I cannot live another half day if I do not get relief." The doctor came, and soon gave him relief, and he was restored to his accustomed health. The deacon lost a splendid opportunity for leaving this wilderness of woe, but when the time came he was not half so anxious to go as his prayer indicated. He must have been joking with the Lord.

This is a good old world in which to live, and I would be willing to make a contract with the Lord to stay here a thousand years if it was His pleasure, provided He would make me useful. My life has been entirely different from what I planned it when a young man, but it is not for me to say that I would have accomplished more had I been able to have carried out my original plans. One regret of my life has been that I could not have been better prepared, since I have been offered such opportunities for service.

(To be continued.)



'Anything else, Sir?'
'No! what else could I want?'

WELL NOW what could he, anyway? Here he is in the Hamilton—Maddux Hotel. His room is furnished right up-to-the-minute. He has a spick and span private bath, white as can be. He has service a-la-speed. He is in an atmosphere of friendly individual courtesy. He has a spacious, beautiful lobby at his disposal. He knows that he is getting \$5.00 worth of comfort and luxury for only \$3.00 a day.



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A PROFITABLE TWIN

Find enclosed a picture of one of our Hampshire sheep. This sheep was a twin. Their mother died with pneumonia and they were fed on the bottle four and five times a day. Both are now living and doing well. The one shown here is "Mush." When she was a year old she dropped twins and clipped 16 pounds of wool. At two years of age she had triplets and clipped 12 pounds of wool.

Chas. F. Ampacher & Son,
Juniata county, Pa.

What Our Readers Say

Women Drivers

I WAS amused when I read in the March 8th issue where S. W. scores women drivers. I cannot recall having ever heard of a woman driver mixing up in a collision with a railroad train, while the papers are full of men trying to drive their high-powered autos over locomotives.

I have driven a car for twelve years. Have never run over anything except one chicken, and the only time I ever waited for help was when a man (road hog) crowded me off the highway and upset my car, pinning me beneath the steering wheel, where I was obliged to wait for help.

I can change a tire or patch a tube as quick and as well as any man can, so why wait for him?

I think S. W. was measuring the "cops" corn in his own half bushel when he said they could be "won over with a smile."

You are mistaken, S. W., all men are not built that way. Mrs. O. G. Marion county, W. Va.

Of course there are lots of jokes poked at the woman driver. Just like the Ford jokes.

But this poor soul who wrote your paper surely must take these jokes seriously. But the woman driver is here to stay.

I think your correspondent has been misinformed in regard to most traffic violators being women. From my experience I find most women very careful. That's why mostly men don't like women drivers; they obey the road signs; they seldom speed; they are too slow.

A case in mind, very recently we were coming along a hard road and were about to make a left-hand turn onto the ash road. My husband was driving and slowed down (our car has a stop signal). He put out his hand to designate his intention to turn, and was just letting out the clutch when "zlm!" a big car with a big red-faced fat man cut in in front of us. Another three seconds and we would have been his victims. He was going 50 if at all. I couldn't get his number.

About ten days ago we made that same turn. A car was right behind us—a woman driver with another woman and three little children. I looked back. She had pulled up back of us and slowed down. I said to my husband, "A woman driver and probably her own babies in there with her. She will take no chances."

Lots of men don't want their wives to learn to drive—mine didn't. Thought I was too excitable. But he had to go away and I had to know how in order to get to town. He taught me, and now he is as proud as

a peacock. Tells me how careful I am and that he doesn't worry a bit when I take the car out. My own husband decrees me a good driver!

I wish that man who wrote you would try teaching his own wife—if he has one. A Woman Driver.

Venango county, Pa.

A Woman with the Hoe

IN April 12th issue of Pennsylvania Farmer I noticed an article to which I take exception. On page 7 it relates "how and what a man can do with a wheel hoe." I would like to know, why not a woman with a wheel hoe?

I defy any man to push a wheel hoe with less energy, more pleasure, and a minimum of destruction than I, who have been eking out a living for the past 20 years by the wheel hoe method. I frankly believe that quite frequently a woman's so-called weakness comes from unused muscles. I have never spent a day in bed through sickness and I attribute my good health to my ability and desire to push a wheel hoe. True, there are times when I'm feeling bad, but from actual experience I find no quicker relief than to go to my garden and actually work it off.

I feel proud to get my tan in my garden. After being tossed on the ocean of life for forty odd years I find that white hand jobs are necessary but that for every white hand there is a black, toll-worn one—somewhere. The soft, white hand of a stranger is poor evidence of a useful life but the grimy, toll-worn hand is mute evidence of usefulness in some avenue of life.

Our sympathies are often misplaced. The most pathetic sight I ever experienced was while riding on a train. A supposed wealthy man sat opposite me alone. At a little station a grimy, hard-working man carrying a dinnerpail came in and sat along side the man of means. I compared the two and silently marveled why wealth and poverty were so unequally divided.

In the course of a few miles the working man alighted into the presence of four little tots who were anxiously awaiting by the track, while a fond wife and mother with a tiny babe in her arms stood in the doorway, greeting that husband and father with a smile. The look that followed him from the wealthy man I shall never forget. The aching void was pitiful to see. Since then I have a much higher regard for the toll-worn element of the world and feel oh, so sorry for the idle rich or for the class that find no pleasure in performing the real duties of life.

A Tiller of the Soil.

LEADCLAD ROOFS

A Thoroughbred Roof

A LEADCLAD ROOF is a thoroughbred—in a class by itself—as finely bred as any prize animal on your farm. It is a blue ribbon product.

A heavy coating of PURE LEAD is fused to copper-bearing steel by the exclusive LEADCLAD process. The result is a roofing that is easy to apply, extremely durable and economical.

A LEADCLAD Roof defies destruction by wind, rain, snow, fire and lightning. It will outlast any roofing you can buy. Down through the years it will serve you in a way that will make you wonder why every roof is not LEADCLAD.

"Ever Plow Up a Bullet?" is a booklet that you should read before you decide on material for your new roof. Send for a free copy

LEADCLAD

Ask your dealer about Leadclad today

Manufactured Solely by

WHEELING METAL & MFG. CO.,
Wheeling, West Virginia



CRO-TOX

Bird and Rodent Repellent

The Guaranteed Protection Against Seed Pests

A few cents worth of prevention will save you dollars and days of cure. Cro-Tox at the insignificant cost of eight to ten cents an acre, will absolutely insure you from loss of seed corn, and loss of time and labor in replanting. It takes only a few minutes to treat seed corn with Cro-Tox before planting.

When so treated your corn is protected against damage by crows, pheasants, black-birds, squirrels, woodchucks, moles, gophers, wire worms, grubs and insect pests. Cro-Tox also prevents seed rot.

CRO-TOX IS NON-POISONOUS

It will not injure the corn. It will not kill birds or animals. It repels them. They will not touch seed treated with Cro-Tox. It is not necessary to dry seed treated with Cro-Tox, with lime or plaster. Cannot clog planter.

Cro-Tox is sold under an absolute money back guarantee, to do all that is claimed for it.

If your dealer cannot supply you, refuse substitutes and write us direct, enclosing \$1.00 per each bushel of seed corn you wish to treat. Sold by Seed, Drug and Hardware Stores.

Be sure to get the genuine, look for the name Cro-Tox.

Made by Bonide Chemical Co., Inc. Utica, N. Y.



Read the Advertisements

they keep you to the fore of modern life.

Through advertisements you've laid down the shovel and the hoe. You can buy a whole harvest ready-to-eat in cans. You've hung up the fiddle and the bow, for a radio. There's little old-time work left in this age of amazing short-cuts. Read the advertisements carefully and when answering them, say you saw their ad in Pennsylvania Farmer.

THE YOUNG PEOPLE

Insect Music Has Purpose

LIKE the troubadours of old, insects sing of love and war—but more often of love, explained Anna B. Comstock, emeritus professor of nature study, over Cornell University radio station.

The male mosquito is a harmless little fellow who keeps rather quiet. He is distinguished from the female by a large pair of feathery pompons on his head. These are antennae or feelers and on each segment are hairs; the longer hairs are on the antennae near the head and they are gradually shorter toward the top.

Professor A. M. Mayer cemented a male mosquito to a glass and observed him through a microscope while an assistant sounded tuning forks, varying in pitch. He found that a low-pitched note caused a whirl of the hairs nearest the head to vibrate; a note from a higher key caused the hair near the tip to vibrate. The range of the antennae extended over the middle and higher octaves of the piano.

The Female Mosquito Sings and Bites

It is unusual for the male to receive the song but in the case of the mosquito it is the female who does the singing and also the biting.

The chirp of the cricket is, in literature, usually associated with autumn; but the careful listener may hear him in the early summer, although his song is not so insistent then as later in the season. The male cricket is a manly and self-respecting troubadour and does not wander abroad to seek his love, but stands at his own gate and plays his fiddle lustily. He knows the shy lady is not far away and if she likes his song she will come to him when her heart is won.

Crickets Hear With Elbows

Each wing-cover of the male cricket is divided into membranous, disk-like spaces on top, and across each extends a vein covered with transverse ridges, the "file," on the inner edge, near the base, is a hardened portion called the scraper. When he chirps the cricket lifts his wing-covers and draws the scraper of one across the file of the other, and thus sets both in vibration. The cricket ear is placed conveniently in the tibia of the front leg, so that these insects literally hear with their elbows.

Then, there is the snowy tree-cricket, the mysterious musician of the late autumn. He can be heard but seldom seen in late September. His pallid green color makes him a ghost of an insect, rather than a real one. The "fiddle" is similar to the black chick's, but he is a true ventriloquist and it is almost impossible to find him by following the seeming direction of the song.

Orchestra Has Rhythm

So far as we know, the snowy tree-cricket is the only one of the insect musicians that seems conscious of the fact that he belongs to an orchestra. Their concert may begin in the late afternoon and continue until early in the morning. There may be discord at first, but as more players join the concert a rhythmic beat is established that is in as perfect time as if governed by the baton of a Damrosch. Flity and fortunately the song of this cricket is the most soothing of any of the songs of the insects. To listen to it consciously would make the most unfortunate victim of insomnia drowsy.

NEW BOOK OF GAMES

A BOOK of games that will prove a help in planning both indoor and outdoor social gatherings has been published by Eldridge Entertainment House, Franklin, Ohio. "Jolly Games and Fun Makers" by Raymond G. Bressler, Deputy Secretary of Agriculture, Pennsylvania, will be especially helpful in planning games or parties. The price is 75c.



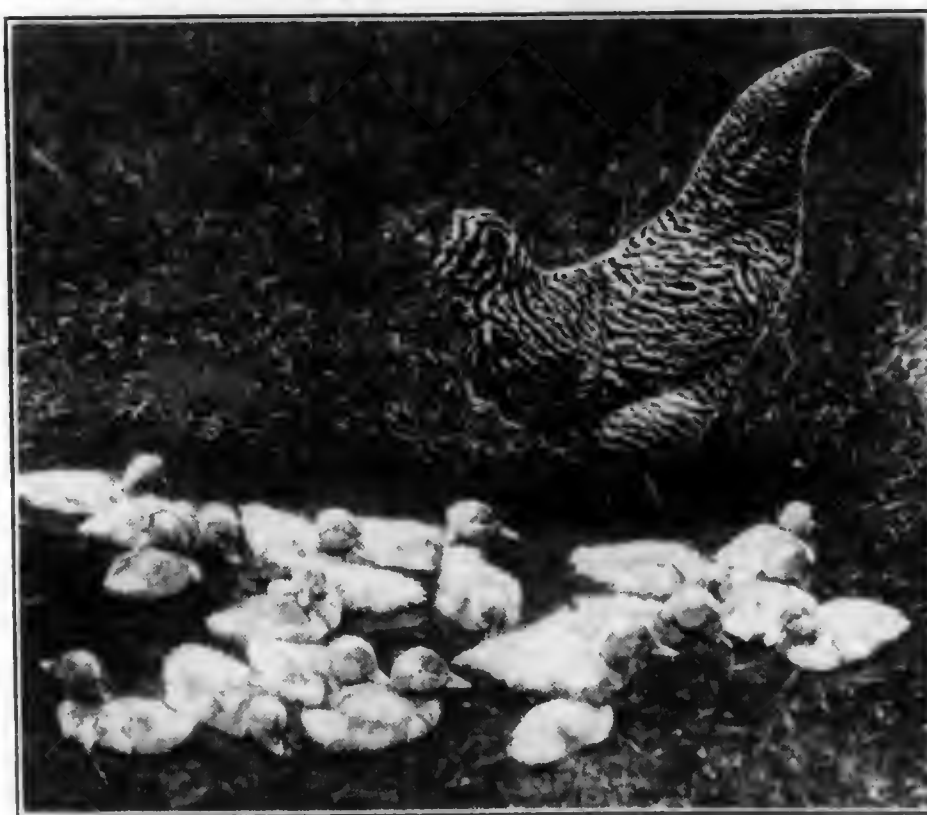
WHY FATHERS GROW BALD
First Prize
By Barbara Ellen Shoemaker, Pennsylvania

It's Easy to Do

(Tune: "Sunny Side Up")
Keep your sunny side up—up!
Hide the side that gets blue,
If you are enjoying good health
It's worth more to you than your wealth.
Keep your funny side up—up!
Let your laughter come through—do!
Stand up tall and straight,
Never stay up late—
Keep your sunny side up!
Keep your sunny side up—up!
It is easy to do—
If you drink milk—each day a quart.
Eat fresh greens, just try every sort,
Keep the buttered side up—up
As your dark bread you chew—chew.
Cereals and fruit,
And your eggs to suit—
Keep your sunny side up!

The Youthful Cook

FROM the National Dairy Council we have the following suggestions for cottage cheese salads:
Tomatoes stuffed with cottage cheese;



"Cluck! Cluck! Cluck! Don't get your feet wet."

Four-H Dress Review for Girls

A THREE-WEEKS sight seeing trip to Paris and other points of interest in Europe during June, 1931, will be awarded the Four-H Style Queen selected in a National Four-H Club Girls' Style Dress Revue contest to be held during the Ninth Boys and Girls' Congress in Chicago, according to an announcement by the National Committee on Boys' and Girls' Club Work.

All clothing club members enrolled in Four-H Clubs in every county in the Union are eligible to compete in this contest. In addition to the grand prize, free trips to the National Four-H Club Congress, wrist watches and medals of honor are being offered by the Chicago Mail Order Company to county, state and reserve national champions.

Medals of Honor

Entrants in the contest will model in one dress of their own making in one of the following classes; cotton school dress, tailored wool dress, semi-tailored silk dress or informal party dress.

A silver oxidized and a bronze medal of honor will be awarded the county champion and near county champion, respectively, in all counties staging a Four-H style show in which there are ten or more contestants.

An educational trip to the Ninth National Four-H Club Congress to be held in Chicago, November 28 to December 5, 1930, will be offered as a prize to the winners selected in statewide Four-H Club Girls' Style Dress Revue contests to compete for national honors. In the national contest, the Four-H Style Queen and her state Four-H Club leader will be awarded the trip abroad. The three high scoring individuals in each class of the final contest will be awarded wrist watches.

Little Folks

Are You a Poet?

NO wonder poor Mother Hen is concerned about her babies! Any sensible chicken knows that a pond of water is more dangerous than a hawk. Who ever heard of a chick that wanted to swim?

Everybody likes to write poetry, so let's put on our poetry caps and write just four lines telling the story as the picture shows it.

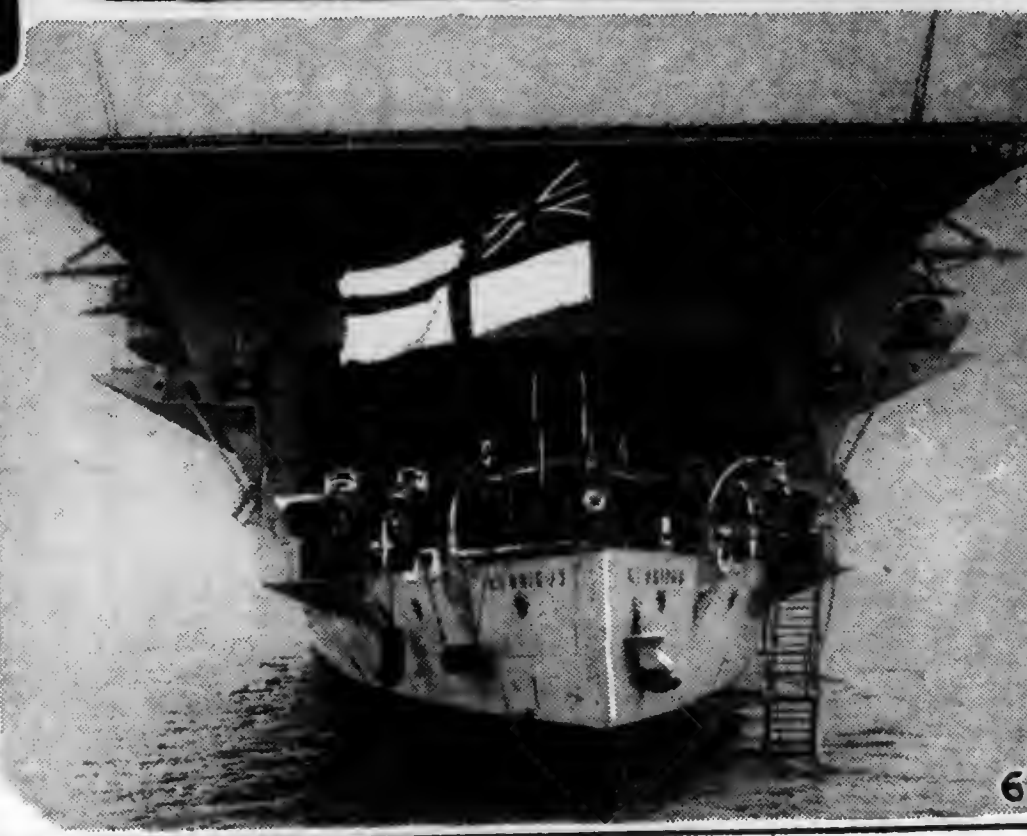
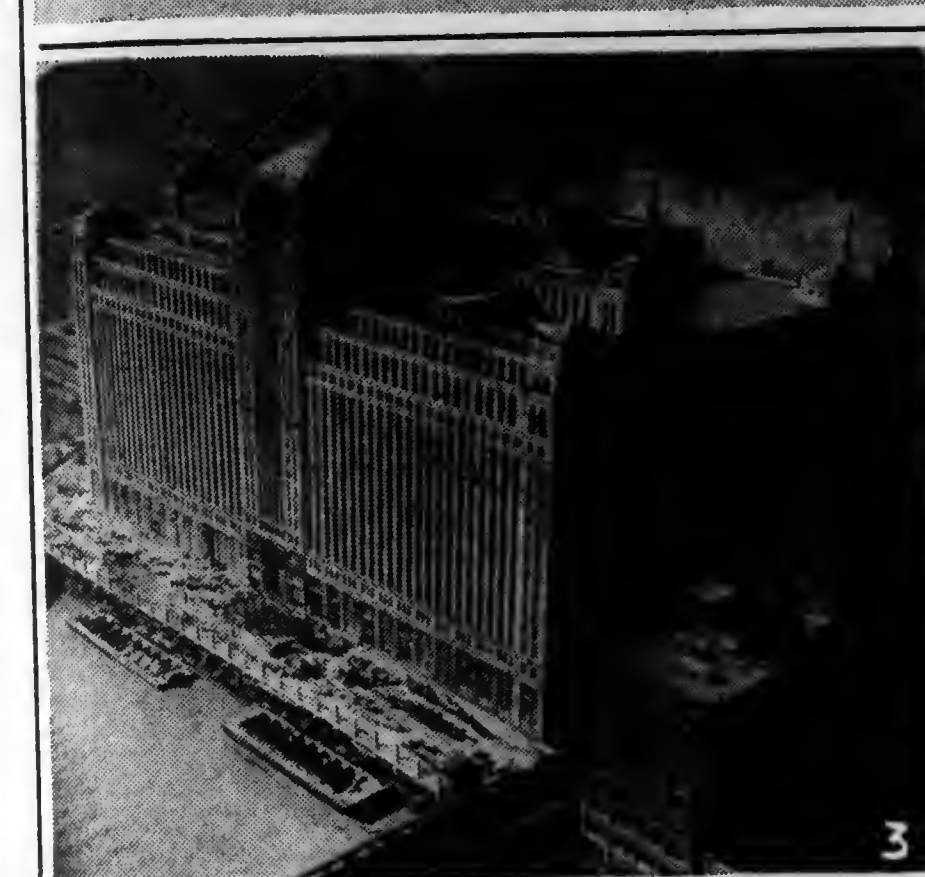
Three book prizes will be given for the best four-line poem written by any boy or girl over twelve. Then if you are under twelve you may be one of the lucky ten who will receive a surprise prize for the best four-line poem. There is one requirement—be sure to state your age.

Just one week for this—so hurry! Send your letter to Young People's Editor, Pennsylvania Farmer, 7301 Penn Avenue, Pittsburgh, Pa.

Just a Suggestion

MEMBERS of the St. Louis county, Minn., forestry clubs for the past two years have been selling pine knots for use as Christmas gifts. Last year they decided to make up an unusually attractive package, so in each box they placed a package of fairy-fire and on top of the pine knots, a wreath of balsam. With the assistance of Elizabeth Spietersbach, assistant county club agent, and Parker Anderson, state extension forester, an attractive mailing label was created to paste across the top of the box after it was packed. This label was 8½ by 11½ inches in size. The boxes sold for \$1.25 each.

PASSING EVENTS IN PICTURES



(Copyright by Underwood & Underwood)

1. Convention of twins! Photo shows twelve pairs of twins, forming a dancing chorus which will feature the program of the annual Convention of Twins at Long Beach, Calif. No singles or triplets will be allowed.

2. New York City.—Two-way telephone-television, a communication method by which persons participating in a telephone conversation see and talk directly to animated photographs of each other, was demonstrated by officers and engineers of the American Telephone and Telegraph Co. over a mile and a half of wires.

The conversations were conducted from specially designed sound-proof booths by apparatus that has been called the "ikonophone."

Each participant was confronted in the booth by a clear, speaking photograph in a 5x7 inch frame of the person with whom he was talking. The slightest variation in facial expression was transmitted instantly and was synchronized with the voice perfectly.

Photo shows Walter S. Gifford, president of the A. T. & T. Co. (left), ready for his first sight conversation, receiving the technical details from Dr. H. E. Ives.

3. Chicago.—Photograph shows the world's biggest building known as the Merchandise Mart in Chicago, which will house a city of wholesalers under one roof.

4. San Francisco, Calif.—Photo shows, left

to right Yoshiko Matsudaira, Keiko Nakamura, Kimiko Ashino, Yoshika Sato, and Suniko Tokuda, on their arrival here. They are from prominent Japanese families and are "Envoys of Gratitude, coming here to thank the U. S. for aid during the last tragic earthquake.

5. St. Louis, Mo.—Photo shows a rehabilitated covered wagon in the parade of the Oregon Trail Centennial which opened here—the spot where the historic trek began 100 years ago. The frame of this wagon is genuine—the wheels and a few other parts have been added.

6. Portsmouth, Eng.—Photo shows the queer stern and flight deck of H. M. S. Glorious, the large British cruiser which has been converted into England's latest aircraft carrier.

Get ready for summer milking the **EMPIRE MILKER**

**SAVES TIME WHEN
TIME COUNTS . . .**

\$8⁵⁰
a month

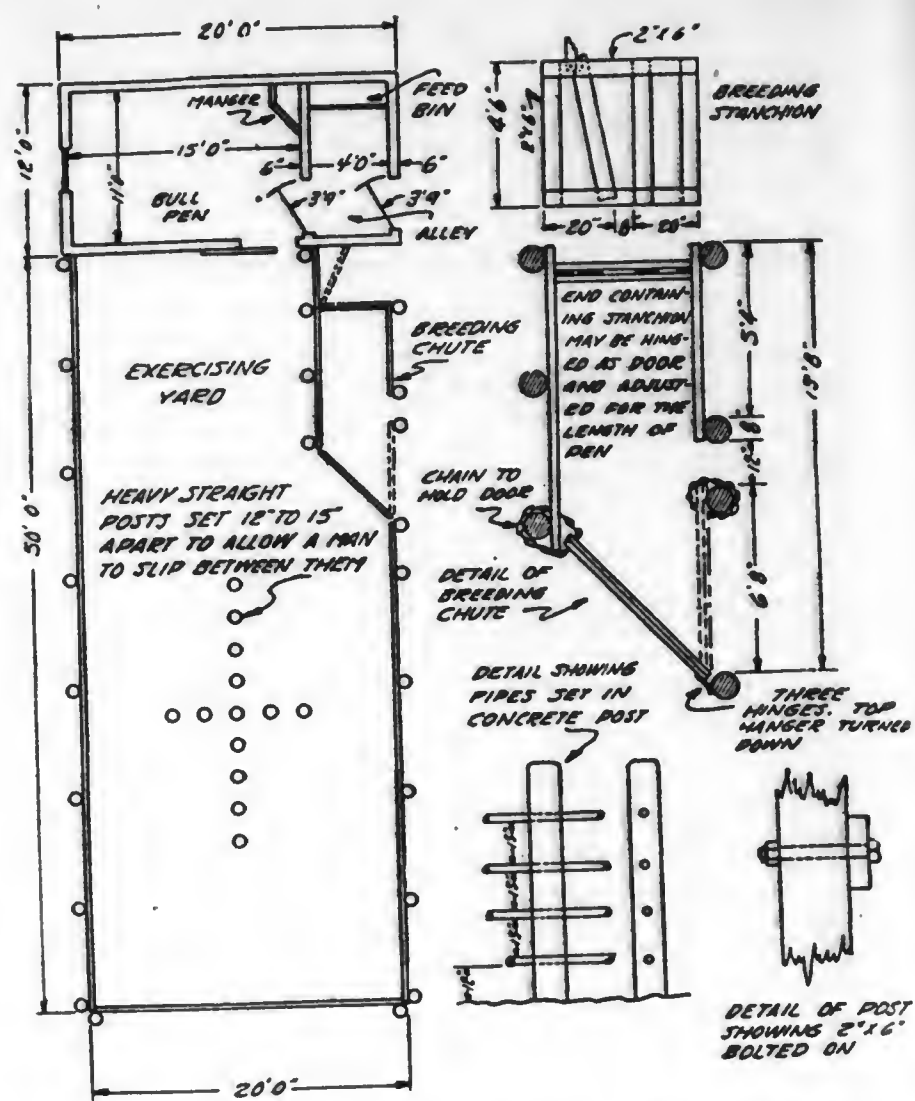
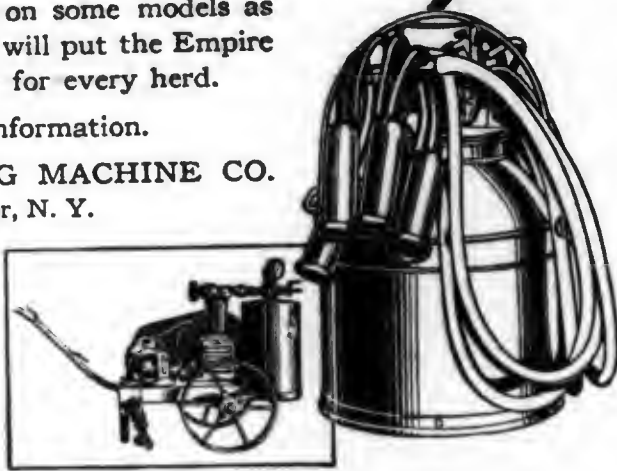
Why spend several hours a day, during the busiest season of the year, at the cow-barn chores? An Empire Milker will do the job better in half the time. Use that extra hour saved for profitable work in the fields.

Every Empire is backed by over 20 years' experience. Thoroughly dependable. Many up-to-the-minute and time-proven features. Milks right at every milking.

Don't put it off any longer. A small down payment and terms on some models as low as \$8.50 a month will put the Empire in your barn. A size for every herd.

Write today for full information.

EMPIRE MILKING MACHINE CO.
Rochester, N. Y.



D-759 SAFE KEEPER BULL PEN

Insurance Against Bulls

ALMOST every day we read where some person has been killed or crippled by a supposed gentle bull, and yet farmers continue to put their trust in such animals and take chances on being trampled or gored. Every bull is dangerous, no matter how quiet and gentle he may seem, and the only way to be safe is to consider every bull a potential killer and govern our actions accordingly.

There are three necessary things in the safe handling of a bull. One is a ring in his nose and a strong bull staff for leading him; another is a box stall or stanchion so strong that he cannot break it and so arranged that the bull can be fed and attended to without getting into the stall; and the third is an absolutely safe bull pen and exercise yard.

The bull pen and exercise yard shown in the diagram (D-759) is based on the plan recommended by Michigan State College, the bull pen being 11 feet by 15 feet and the exercise yard 20 feet by 50 feet. The fence must be strong enough that the bull cannot possibly break through, as one successful break makes him very difficult to hold afterward; and should be so constructed that he cannot get his head over, under, or through it. The bull should be able to see what is going on outside and get accustomed to people touching him, as he will be more contented and less likely to develop a bad disposition.

There are various ways of making the fence. One way is to set posts eight feet apart of reinforced concrete not less than five and preferably six inches square at the top and nine feet long, with the edges beveled. The fence usually consists of four two-inch used iron pipes, one being placed 12 inches from the ground, and the other three 15 inches apart, so that the top of the upper one will be about five feet six inches above the ground. In some cases the pipes are put through the posts, while in others the posts are notched on the inner side and clamped to the pipes with U-bolts.

Directions for making concrete posts can be secured from the Portland Cement Association, Chicago, Ill. If one prefers, he can use red cedar

posts eight inches in diameter and nine feet long, or creosoted posts of the same size. Where sound poles four to six inches in diameter are available, these are often bolted to the concrete or creosoted posts, and make a very satisfactory fence; or two-by-sixes may be used instead of the poles.

A very valuable safety device is to set a row of eight or ten straight heavy posts about the middle of the yard as shown with a shorter row at right angles. These should vary from 12 to 15 inches apart, so that a man can slip between them and escape from a maddened bull. Also it is well to hang in convenient locations some stout clubs about two feet long and heavy enough to knock a bull down. They are more effective than a pitchfork in stopping an angry bull, and not so likely to injure him permanently. Also it is desirable that the exercise yard be well drained to keep down the spring mud, which not only interferes with the bull's exercise but also with one's escape in time of danger.

I. W. Dickerson.

Cow-Testing Ass'n Report

Warren County

THE Warren County Cow-Testing Association finished its seventh year March 1, 1930, with 19 whole-year and four part-year members. There were 629 cows in the Association during all or part of the year.

The results for the seven years are as follows:

| Year | Av. No. Cows | Lbs. Milk | Lbs. Fat |
|------|--------------|-----------|----------|
| 1924 | 469.49 | 7636 | 245.5 |
| 1925 | 382.49 | 7061 | 248.6 |
| 1926 | 284.67 | 5828 | 240.3 |
| 1927 | 474.93 | 8207 | 314.9 |
| 1928 | 626.26 | 8229 | 318.9 |
| 1929 | 493.15 | 7973 | 297.6 |
| 1930 | 437.00 | 5158 | 298.7 |

A list of 300-lb. herds follows:

| Owners | Breed | Lbs. Milk | Lbs. Fat |
|--------------------|--------------|-----------|----------|
| G. G. Carter | G.H. | 10,524 | 391.9 |
| A. F. Dyke | R.J. | 7,498 | 372.6 |
| Rouse Hospital | R.&G.H. | 9,618 | 334.1 |
| Dr. E. J. Kelley | R.H.&G.G. | 8,929 | 334.1 |
| R. E. Firth | G.H. | 8,918 | 324.6 |
| Frank Swart | R.&G.H. | 9,436 | 320.9 |
| State Hospital | R.&G.H. | 9,218 | 313.6 |
| Donald Nutall | Mixed | 7,866 | 302.6 |
| A. G. Ehrensberger | O. C. Tritt | | |
| Tester | County Agent | | |

Announcing the New "3,000,000" Golden Series De Laval CREAM SEPARATORS

**Combines
the Easiest Running
with the Cleanest
Skimming**

7 Improvements

These new De Laval Separators are unquestionably the crowning achievement in 52 years of separator manufacture and leadership. They are the finest cream separators in De Laval history. They combine the easiest running with the cleanest skimming, and the longest life with greatest convenience of handling. They are striking in beauty of design and finish, a satisfaction and pleasure to use and own. The new features, combined with such well-known De Laval features as the wonderful floating bowl, turnable supply can, durable, extra heavy tinware, oil window, perfect workmanship, etc., are:

1. **New trailing bowl discharge**, which reduces power required to operate the machine and also reduces frothing of the skim-milk;
2. **"V" shaped channels** on cream and skim-milk spouts guide streams straight;
3. **Ball bearings, properly protected**, make their separator use practical and afford still easier running;
4. **Worm wheel pinned to shaft** in way that permits worm wheel and spindle to align themselves and run easier and last longer;
5. **Improved oil overflow** insures used oil and sediment being automatically flushed out of the oil reservoir;
6. **Extended shaft with protecting cap** enables motor or power drive to be attached at any later time without taking the machine apart;
7. **New two-length crank** (on larger sizes) enables the machine to be quickly brought to speed with crank in the long position, then a turn of the wrist, without slackening the turning, and the crank is shortened, which enables speed to be maintained with the least effort.

These new De Laval must be seen and tried to be appreciated. Your De Laval dealer will gladly let you see and try them. If you do not know the name of your dealer, write nearest office below for full information.

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The Start of a Corn Crop

By L. W. LIGHTY

FARMERS are plowing, harrowing, planting and a goodly number have tested their seed corn and are sure it will sprout. A few who have had sad experience with the crows pulling the corn are using a repellent so the birds will leave it alone. The great majority know that a real fine loose seedbed with a shallow covering of the grain also will help in assuring a good stand. And all of us who know anything know with absolute assurance if we have a poor stand of corn we cannot expect a full crop.

Getting a good stand, not too thick nor too thin, of thrifty plants in the corn field is much more than half the battle in growing a full corn crop. This part accomplished the next proposition is to have the field completely free from weeds until the plants have grown beyond the cultivating stage. Some years this is easy enough, but often after corn planting we have a long rainy spell and we cannot get into the field with the harrow and weeder in good time to destroy the weeds when very small.

I have found it wise to do all possible with the tilling implements and then finish out with the hoe so when we are over the field it is completely free from weeds. Then the following cultivations are easy and weeds make little trouble.

An inquirer wishes to know about fertilizer for corn. Corn grows rapidly and must have an abundance of available food at hand. Stable manure spread on the sod during the winter is of course excellent, but on the average soil it pays handsomely to use a complete fertilizer. Applying this over the entire area I found greatly preferable in dry years, but in years of plenty of rain there was no difference between the part where the fertilizer was put in the row or distributed over the entire area.

Of course we all know after we have done our part well in the fore part of the season the making of the corn crop is in the clutches of the weather, however, the man who has the best stand on a fine fertile area by the fourth of July may outlive fairly bad weather, but the fellow who has weeds and clods and infertile soil and an irregular stand need never think of building a new corn crib.

Dairy Rations

An unsigned letter says: "Will you tell me something about the best dairy ration?"

Well, here are some of the ingredients of the best dairy ration. It should be fairly well balanced with a number of grains and by-products so it will furnish the needs of the cow, and there should be an abundance of roughage. All of these feeds should be reasonably palatable. If the feed lacks in palatability the cow will not consume enough and the more feed the right kind of a cow will consume the more profit she can make.

Then you must consider the physical effects of the feeds. A feed may be injurious to the cow or the product and that should not enter into the ration. While the above ingredients are of vital importance the one that is of still greater importance is the cost of the ration.

If the ration costs too much the chances are slim at this time for any profit. Many farmers are growing crops that are unprofitable. How would it be to utilize some of those unprofitable acres by growing alfalfa, soy-bean hay and grain for the cows? Are you growing all the corn and oats you can for the cows?

When the surplus beats down the prices of the dairy products the only remedy we have is to beat down the cost of production. Many of us can beat down the cost of production by growing more and better ingredients of the ration.



Pasture Again

Bringing the same old temptations and dangers it brought last year and will bring next. You know what they are—so do thousands of other dairymen. Yet every year thousands of dairymen make the same old mistake.

Grass looks good to you and your cows and you turn the herd out too early. Result—young grass trampled so badly it won't be any good all summer; cows getting water instead of real feed because their grain allowance has been reduced; cows going into a milk slump in July and August when a little more grain would have carried them safely through to the fall.

Be sensible about pasture time. Pasture is great stuff if you use it the right way—the only way—and that's with a simple, low-protein grain ration that will supply the nutrients needed by the cow but lacking in grass. Let

DIAMOND CORN GLUTEN MEAL

form the basis of your grain mix this summer. Bran and ground oats will do the rest—maybe a little oil meal too. This is economical feeding—safe feeding—feeding that will keep your herd healthy and happy and producing steadily and well Want formulas and directions? Ask us. They're free.



RATION SERVICE DEPT.
CORN PRODUCTS REFINING CO.
17 BATTERY PLACE, N. Y. CITY

Mrs., also, of Buffalo Corn Gluten Meal

In the Pennsylvania Farmer are Names—names of advertised products. Time and again you see them. They are like old friends—to be trusted. Their names mean economy, full value and integrity. Tell the manufacturer you saw their ad in Pennsylvania Farmer.

What Does AUTOMATIC Milker Mean?

AUTOMATIC means self-acting. That's why the Perfection Automatic Milker was so named. It is self-acting. It instantly adjusts itself to the milking needs of the individual cow.

The cow's milk flow automatically regulates the action of the milker. If a cow milks easily, the amount of suction applied by the Perfection Automatic Milker is reduced and the sucks are longer. If she is a hard milker, it increases the suction—in shorter sucks. As a result, your cows are not all subjected to the same amount of suction in milking.

Like the sucking of the baby calf, the Perfection Automatic Milker varies the length and strength of its suction to suit the individual cow. This automatic regulation is an exclusive Perfection feature.

Perfection Manufacturing Company
2170 East Hennepin Avenue, Minneapolis, Minnesota

We want you to see this different milker in actual operation in your own barn on your own cows. Write today for a personal demonstration. **Easy Terms**



**Perfection
Automatic
Milker**

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SATURDAY, MAY 10, 1930, at farm 4 miles from SOMERVILLE, NEW JERSEY
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ONE OF THE OLDEST HOLSTEIN HERDS IN THE UNITED STATES
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A most wonderful place to buy foundation animals backed by 41 years of breeding on the one farm—a genuine breeder's herd. Send for complete catalog at once, to
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A new automobile without four wheel brakes, electric lights and starter would not be considered. The MECO Automatic Bottling and Capping Machine costs no more than some hand operated machines. The various sizes bottles are filled and capped automatically. Automatic operation is made possible by the MECO dropless valve. The MECO fills rapidly and uniformly, requires small floor space, simple to operate, easily cleaned, all crevices and catch traps for milk deposits are eliminated and the MECO is fully approved by Health Authorities. Sizes suitable for various dairies. Write us for illustrated and descriptive literature.
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LIVESTOCK

PITTSBURGH Cattle

Receipts continue light, only 40 carloads arriving for Monday's trade. Demand was anything but urgent, buyers bidding lower and also buying cheaper must classes of steers. Good fat weighty steers were steady, but the ordinary and pretty good light and handy-weight steers looked low. Choice fat steers with weight brought \$12.25@12.50, with good weighty kind around \$12 and plainer sort around \$11.50. A few choice handy-weight steers brought \$12.25, but good butcher steers could be had at \$11.25@11.50 and useful killers around \$11. Fair light and handy steers brought \$10.50@10.75 and ordinary kind around \$10, common on down to \$9. One load of yearling steers needing more finish sold at \$11.25. Heifers were few, one prime baby beef heifer going at \$11.50 and the best of the others \$10.50@10.75. Fat cows were rather slow, a few selling at \$8.50@8.75, not many good enough to go above \$8. Canners sold at \$4.75@5.25, largely \$5@5.25. Bulls were steady, with best handy weights \$8.75@9. A few buyers for steers to graze were on hand but few cattle suitable for this purpose, held at \$10@11 per cwt.

| | |
|--|-------------|
| Prime fat steers, 1,200 lbs. or over | 12 00@12 25 |
| Good to choice, do. | 11 75@12 00 |
| Fair to good, do. | 11 00@11 25 |
| Plain heavy steers | 11 00@11 25 |
| Choice handy-weight steers | 10 00@10 25 |
| Good butcher steers, 1,000 to 1,150 lbs. | 11 50@11 75 |
| Fair to good, do. | 11 00@11 50 |
| Ordinary to fair, do. | 10 25@10 75 |
| Common, do. | 9 50@10 00 |
| Good light butchers | 11 25@11 50 |
| Common to medium, do. | 10 75@11 25 |
| Fair to good light steers | 10 00@10 50 |
| Common to medium, do. | 9 50@10 00 |
| Feeder light steers | 8 50@9 00 |
| Feeder heavy steers | 8 00@8 50 |
| Stockers | 8 00@8 50 |
| Choice fat heifers | 10 00@10 50 |
| Good to choice heifers | 9 00@9 50 |
| Fair to good heifers | 8 00@8 50 |
| Common to fair heifers | 7 50@8 00 |
| Choice fat cows | 11 50@12 00 |
| Good to choice fat cows | 7 50@8 00 |
| Fair to good cows | 6 50@7 00 |
| Common to fair cows | 5 50@6 00 |
| Canners | 4 75@5 25 |
| Fresh cows, calf at side | 50 00@55 00 |
| Choice heavy bulls | 8 50@9 00 |
| Choice handy butcher bulls | 8 75@9 00 |
| Good handy bulls | 8 00@8 50 |
| Fair to good bulls | 7 50@8 00 |
| Common to fair bulls | 7 25@7 50 |
| Interior bulls | 6 00@6 50 |

Monday's Representative Sales

| | | | | | |
|------------|-------|---------|-------|---------|-------|
| 2 1305 | 12.50 | 18 1302 | 12.25 | 20 1236 | 12.30 |
| 21 1307 | 12.25 | 24 1089 | 12.25 | 15 1254 | 12.00 |
| 7 1241 | 12.00 | 5 1154 | 12.00 | 18 1204 | 11.75 |
| 10 1228 | 11.50 | 10 1180 | 11.25 | 6 961 | 11.40 |
| 16 1070 | 11.25 | 26 817 | 11.25 | 11 1028 | 11.15 |
| 10 1123 | 11.00 | 3 1110 | 11.00 | 10 1072 | 11.10 |
| 3 890 | 10.85 | 15 938 | 10.65 | 12 876 | 10.65 |
| 6 1016 | 10.50 | 8 1030 | 10.25 | 6 861 | 10.25 |
| 3 740 | 10.00 | | | 7 807 | 9.00 |
| (7) Mixed. | | | | | |

Hogs

Monday's receipts were light, 22 double-deck carloads, but the demand was not broad and prices showed little change from last week's close. Sorted handy-weights brought \$10.75 largely, mixed selling up to \$10.70 but mainly \$10.50@10.65. Heavy hogs went at \$10.25@10.40, the heavier the cheaper. Pigs and light Yorkers brought \$10.25 largely. Sows were all wanted at \$8.75@9.

Sheep and Lambs

Monday's supply was about 15 double-deck carloads, one-third of them consisting of sheep. The quality of the sheep was mainly good. Best wethers went at \$5.25 in a big way. One bunch sold at

\$5.40, but it took good ones to command \$5.25. Clipped lambs of good finish were firm at \$9.25, with culls at \$7 on down as rule, a few good culls \$7.50. Common clipped lambs sold down to \$5 per cwt. Spring lambs were about steady at a range of \$10@14 per cwt. Receipts are not large but are increasing, and a good-sized lamb crop is expected in this territory.

Clipped

| | |
|----------------------|-------------|
| Good to best wethers | \$5 00@5 25 |
| Good mixed | 4 50@4 75 |
| Fair to good, do. | 4 00@4 25 |
| Common to fair | 3 00@3 25 |
| Interior sheep | 2 00@2 25 |
| Good to best lambs | 9 00@9 25 |
| Medium lambs | 7 75@8 25 |
| Culls and common | 5 00@5 25 |
| Spring lambs | 10 00@11 00 |

Calves

About 1,100 calves appeared for Monday's market, an ample supply. Prices were lower at \$11 per cwt. for best calves, \$7.50@8.50 for seconds and \$5@6 for common.

CHICAGO Cattle

Chicago, April 28.—Cattle receipts amounted to 24,000 head. The market was 25¢ lower with top at \$14.75. Choice steers, 1,200 lbs. or over \$12.00@12.25. Common to fair steers \$11.75@12.00. Fair to good, do. \$11.00@11.25. Plain heavy steers \$11.00@11.25. Choice handy-weight steers \$10.00@10.25. Good butcher steers, 1,000 to 1,150 lbs. \$11.50@11.75. Fair to good, do. \$11.00@11.50. Ordinary to fair, do. \$10.25@10.75. Common, do. \$9.50@10.00. Good light butchers \$11.25@11.50. Common to medium, do. \$10.75@11.25. Fair to good light steers \$10.00@10.50. Common to medium, do. \$9.50@10.00. Feeder light steers \$8.50@9.00. Feeder heavy steers \$8.00@8.50. Stockers \$8.00@8.50. Choice fat heifers \$10.00@10.50. Good to choice heifers \$9.00@9.50. Fair to good heifers \$8.00@8.50. Common to fair heifers \$7.50@8.00. Choice fat cows \$11.50@12.00. Good to choice fat cows \$7.50@8.00. Fair to good cows \$6.50@7.00. Common to fair cows \$5.50@6.00. Canners \$4.75@5.25. Fresh cows, calf at side \$50.00@55.00. Choice heavy bulls \$8.50@9.00. Choice handy butcher bulls \$8.75@9.00. Good handy bulls \$8.00@8.50. Fair to good bulls \$7.50@8.00. Common to fair bulls \$7.25@7.50. Interior bulls \$6.00@6.50.

Produce Market Quotations

PHILADELPHIA

Butter.—Higher than extras, 41¢@44¢; 92 score, 40¢; 90 score, 38¢@40¢. Eggs.—Fancy select, 32¢@34¢ extra firsts, 28¢; firsts, 27¢; seconds, 25¢@26¢. Poultry.—Live, fowls, 22¢@30¢; chickens, 30¢@40¢; old roosters, 21¢@22¢; pigeons, pr. 45¢; ducks, 25¢@27¢; turkeys, 25¢@35¢. Fruits.—APPLES, N. J. Md. & Pa., bu. baskets, Yorks, \$1.75@2.25; Winesap, \$2@2.50; Ben Davis, \$1.50@2; Stayman, \$2.25@2.65; Rome, \$2.25@2.75. Vegetables.—ASPARAGUS, doz. bunches, green, N. J. Md. Dela. & S. C. \$2@2.75; BEANS, snap, Fla. bu. hmpers, \$2.50@3.00; ONIONS, Ohio, Ind. Mich. & N. Y., yellow, 100-lb. sack best, \$1.75; POTATOES, Pa., round whites, 100-lb. sack, \$3@3.25; SWEET POTATOES, N. J. basket, yellow, \$1.60@1.85; MUSHROOMS, N. J. & Pa., 3-lb. basket, \$1.60@1.85; RHU-SCALLIONS, N. J., 100 bunches, 50¢@\$1. PEPPERS, Fla., crates, \$1.75@3.25; SPINACH, Pa. & N. J., bu., 40¢@50¢; Md., bu., 50¢@55¢; S. J. bu. hmpers, best, \$2@2.50; KALE, N. J. bu., 30¢@40¢; Md., bu., 40¢@50¢; WATERCRESS, Pa., Va. & Md., bunches, 2¢@3¢.

NEW YORK

Butter.—Creamery, higher than extras, 39½¢@40¢; firsts, 36¢@38½¢; seconds, 33½¢@35¢. Eggs.—White, nearby, average extras, 27¢; extra firsts, 27½¢@28¢; mediums, 27¢. Poultry.—Live, by freight, fowls, 25¢@27¢; chickens, 25¢; broilers, 35¢; old roosters, 15¢; geese, 16¢; ducks, 20¢; turkeys, 20¢@25¢.

LANCASTER

Butter.—Country butter, 50¢@55¢; creamery butter, 48¢@53¢. Eggs.—Fresh, 26¢@30¢. Dressed poultry.—Chickens, \$1.25@2.50 each; springers, 75¢@1.25 each; ducks, \$1.50@2.50 each; aquab, 25¢@50¢ each. Fruits.—APPLES, 20¢@30¢ ¼ pk. Vegetables.—ASPARAGUS, 10¢@20¢ per bunch. BEANS (string), 35¢@40¢ ¼ pk. BEETS, 8¢@10¢ bunch. CABBAGE, 10¢@20¢ bunch. FLOWERS, 25¢@40¢ head. CELERY, 10¢@20¢ bunch. CUCUMBERS, 10¢@15¢ each. EGG PLANTS, 20¢@30¢ each. ENDIVE, 5¢@10¢ head. LETTUCE, 10¢@20¢ head. MUSH-ROOMS, 10¢@15¢ bunch. CARROTS, 8¢@10¢ bunch. CAULI-

Bulls 6 00@9 50
Canners and cutters 4 50@6 25
Salves 6 50@11 50
Stockers 8 50@11 00
Feeders 8 00@11 00
Stock and feeder heifers 7 50@8 50
Stock and feeder cows 5 75@6 75

Hogs

About 40,000 hogs were on hand, including 15,000 "directs." The market was steady to a dime higher. Top hogs brought \$10.20; bulk \$9.65@10.15. Top pigs, 140-160 lbs. \$9.00@9.75. Underweights, 140-160 lbs. \$9.00@10.15. Light, 160-180 lbs. \$9.50@10.20. Medium butchers, 200-250 lbs. \$9.50@10.20. Heavy butchers, 260 lbs. up. \$9.50@9.90. Stags, 70 lbs. dock. \$8.35@9.25.

Sheep

With 24,000 sheep and lambs on sale the market was steady to a quarter lower. Best lambs went at \$9.85. Native lambs \$6.00@8.35. Western lambs \$7.50@8.85. Feeding lambs \$7.50@8.75. Wethers \$5.00@6.75. Yearlings \$5.25@6.00. Ewes \$3.75@5.75.

LANCASTER Cattle

Lancaster, April 28.—Five hundred head of cattle made up the supply. The market was very dull lower, the bulk selling at \$11@11.75. Bulls and she-stock steady to weak; stockers and feeders nominal. A hundred and fifty calves were offered.

ROOMS, 25¢@30¢ per pt. box. ONIONS, 20¢@25¢ ¼ pk. ONIONS, (green), 8¢@10¢ bunch. POTATOES (old) 15¢@20¢, (new) 25¢@30¢ ¼ pk. (old), \$1.45@1.50 bu. POTATOES (sweet) 25¢@30¢ ¼ pk. PEPPERS, 5¢@8¢ ea. PARSLEY, 2¢@5¢ bunch. PEAS, 30¢@35¢ ¼ pk. RADISHES, 8¢@10¢ bunch. RHUBARB, 8¢@10¢ bunch. SPINACH, 15¢@18¢ ¼ pk. TOMATOES, 20¢@25¢ pint box. TURNIPS, 15¢ ¼ pk.

YORK

Butter.—Country, 45¢@50¢; separator, 50¢@55¢. Eggs.—Fresh, 26¢@30¢. Poultry.—Hens, 24¢@28¢ lb.; Leghorns, dressed, \$1.60@1.80 each; heavy, \$1.50@2.25 each. Fruits.—APPLES, 20¢@55¢ ¼ pk.; Stayman, \$1.75@3 per bu.; Baldwins, Yorks, Greenings & Rome, \$2@2.50 per bu. Vegetables.—POTATOES, 15¢@20¢ ¼ pk.; 10¢@12 bunch. CABBAGE, 5¢@35¢ head. LETTUCE, 10¢@20¢ head. OYSTER ROOT, 8¢@10¢ bunch. CARROTS, 8¢@10¢ bunch. ONIONS, 5¢ bunch. SPINACH, 15¢@18¢ ¼ pk. CELERY, 5¢@15¢ per bunch. SAUER KRAUT, 15¢@18¢ quart. TURNIPS, 10¢@13¢ ¼ pk.

PITTSBURGH

Butter.—Nearby tubs, 92 score extras and standards, 38½¢; 89 score, 37¢; 88 score, 36¢. Prints 1¢ higher. Eggs.—Nearby firsts, second-hand cases, 24¢@24½¢; extra firsts, new cases, 25¢@25½¢; nearby henner white and browns, 26¢@26½¢. Poultry.—Live hens, heavy, 27¢@28¢; mediums, 27¢@28¢; Leghorns, 23¢@25¢; broilers, 35¢@40¢; Leghorns, 23¢@25¢; old roosters, 16¢; geese, 16¢; ducks, 20¢@25¢; pi-geons, 35¢@45¢ per pair; turkeys, 20¢@25¢. Fruit.—APPLES, barrel, N. Y., unclassified 2½-in. Russets, \$4 bu. basket; N. Y. U. S. No. 1, 2½-in. Baldwins, \$2@2.25; 48s, 50s (¼-blood) strictly combining \$1.90@2.15. CUCUMBERS, Ohio, box 2 doz., fancy, \$2.75@3. KALE, Md., bu. basket, 65¢@75¢. LETTUCE, Ohio, house, 10-lb. basket, best, \$1.60@1.75. MUSHROOMS, Penn'a 2-lb. basket, \$1.60@1.75. ONIONS, 50-lb. sack, Ohio yellows, 50¢@75¢. POTATOES, U. S. No. 1, Maine Green Mts., 120-lb. sack, \$3.65@3.85. RHUBARB, Mich. house, 5-lb. cartons, 90¢@\$1; choice, 40¢@50¢. SPINACH, Md., bu. basket, 75¢@85¢.

The market was weak to 50¢ lower. Best veals went at \$12 with a few extra at \$14.50. Good steers \$12 00@12 50
Small sales were closed on 568 strictly combining fleeces with values inclined lower. A slight decline was shown on 48s, 50s on a very small volume of trading. Some business was done on steady and burry wools of the 56s and 48s, 50s grades. Also, small lots of wools were offered to be available in the country at prices which would permit figures lower than prices for which spot offerings of graded wools are held. Low wools were quiet with these grades nominally quoted slightly lower. Business in Territory wools consisted chiefly of 64s or finer and 58s, 60s wools. Original bag 64s and finer wools of bulk French combing staple sold at 70¢@72¢, secured basis. Graded French combing moved at 70¢@72¢ secured basis. Some choice lines were held at slightly higher figures than these ranges. Graded strictly combining 58s, 60s sold at 70¢@72¢ secured basis. Sales were moderate to small in quantity. The selection of old wools, also, is poor which has had some influence in lowering prices. Wools of 56s and 48s, 50s qualities were slightly easier although little business was closed. The slow demand from the knitting trade has tended to weaken the medium grades. A little buying is reported both in the West and in the bright-wool states. Some fine and fine medium Utah wools has sold at 21c, a Nevada clip went at 16¢@18¢ and in Idaho a fair movement is reported at 15¢@16¢. Some Ohio wool has been sold, bringing about 20¢ to the grower for medium and 15¢@18¢ for fine wools.

WOOL MARKET

Boston, April 26.—Trading in wool during the past week has been light, says the U. S. Department of Agriculture, Market News Service. Manufacturers bought some moderate quantities, but bids were mostly lower than during the previous week and sales were closed at slightly lower figures than were quoted a week ago. Dealers are strongly resisting pressure for lower prices and as the week closes there seems to be a firm undertone in the sentiment. Fleece wools are quiet and quotations were easier. No business was reported on any class of 64s or finer qualities. Inquiries were received on 58s, 60s but sales of any consequence failed to materialize. Small sales were closed on 56s strictly combining fleeces with values inclined lower. A slight decline was shown on 48s, 50s on a very small volume of trading. Some business was done on steady and burry wools of the 56s and 48s, 50s grades. Also, small lots of wools were offered to be available in the country at prices which would permit figures lower than prices for which spot offerings of graded wools are held. Low wools were quiet with these grades nominally quoted slightly lower. Business in Territory wools consisted chiefly of 64s or finer and 58s, 60s wools. Original bag 64s and finer wools of bulk French combing staple sold at 70¢@72¢, secured basis. Graded French combing moved at 70¢@72¢ secured basis. Some choice lines were held at slightly higher figures than these ranges. Graded strictly combining 58s, 60s sold at 70¢@72¢ secured basis. Sales were moderate to small in quantity. The selection of old wools, also, is poor which has had some influence in lowering prices. Wools of 56s and 48s, 50s qualities were slightly easier although little business was closed. The slow demand from the knitting trade has tended to weaken the medium grades. A little buying is reported both in the West and in the bright-wool states. Some fine and fine medium Utah wools has sold at 21c, a Nevada clip went at 16¢@18¢ and in Idaho a fair movement is reported at 15¢@16¢. Some Ohio wool has been sold, bringing about 20¢ to the grower for medium and 15¢@18¢ for fine wools.

CATTLE TRADE BETTER

The cattle market made the best showing this week in some time even though receipts at 40,700 were 6,000 larger than last week. The big gain was on tops, \$15.15 being paid for some heavy cattle. The highest price for the same week since 1920. However, this was out of line with the market in general and was due entirely to the extreme scarcity of finished heavy cattle. Best yearlings brought \$14.20, the highest since 1920. Average price highest in some time. Average price for the week at \$12 compared with \$11.85 last week, \$13.75 a year ago and \$13.05 two years ago.

Domestic Wool Quotations

Grease Basis, Ohio and Star
64s, 70s, 80s (fine) French combing 26¢@27¢
64s, 70s, 80s (fine) clothing 23¢@24¢
58s, 60s, (¼-blood) strictly combining 28¢@29¢
58s, 60s, (¼-blood) French combing 28¢@29¢
58s, 60s, (¼-blood) clothing 26¢@27¢
56s, (¼-blood) strictly combining 30¢@32¢
56s, (¼-blood) clothing 31¢@32¢
48s, 50s (¼-blood) strictly combining 28¢@29¢
48s, 50s (¼-blood) clothing 28¢@29¢
46s, (low ¼-blood) strictly combining 28¢@29¢
36s, 40s, 44s (common and brail) 25¢@26¢

CHICAGO CASH GRAIN

Chicago, Ill., April 28.—The following cash prices ruled here today: No. 4 hard wheat, \$1.60@1.64; No. 3 yellow corn, 79¢@80¢; No. 3 white corn, \$1.61@1.64; No. 2 white oats, 41¢@42¢.

Lambs a Little Higher

The trend in the lamb market was downward this week though prices were a little higher than last week. Average price this week was \$9.45 against \$9.10 last week and \$16.40 a year ago. Receipts were smaller—88,600 this week against 98,000 last week. There was a big decrease in Colorado lambs, from 71,000 last week to 40,000 this week; but a big gain in California springers, from 3,000 last week to 16,000 this week.

Top woolled lambs hang right at \$10.

By Lee

Farmer's Business Letter

BUSINESS reports this week are a little more favorable though there are still plenty of bad spots. Figures of production and trade are subjected to close scrutiny, such is the eagerness to detect signs of the upturn. If it were possible to take a cross-section of sentiment it would probably be found that confidence had gained somewhat.

Depression abroad is indicated by the decrease in export trade. For the first quarter of this year the value of exports from this country declined \$385,000,000. This decrease has an effect out of proportion to its size, because it means that so much more must be sold in a domestic market already somewhat depressed.

The condition of business has an important bearing on farm product prices. No one at this time seems to expect better than slow gains in business.

Grains Lower

The grain market continues weak, with prices sagging steadily. Export sales of wheat picked up for a day or two, putting a little heat into the trade, but it dropped right off. May wheat at \$10.2 dropped to a new low for the crop season, and this in spite of continued unfavorable reports from Kansas and Oklahoma. On the other hand, India reported a crop of 370,000,000 bushels, an increase of 51,000,000 over last year.

The Stabilization Corporation owns about 31,000,000 bushels of cash wheat and is long about 19,000,000 bushels of the May future, according to a statement issued by Chairman A. A. Legge of the Farm Board. The figures, while large, occasioned little comment, as they were about in line with recent trade estimates.

Weather has continued favorable to the preparation of corn ground. Some planting has been done in the southern half of the corn belt. It has been cool this week, but if it should turn warm a lot of planting will be done next week.

Cattle Trade Better

The cattle market made the best showing this week in some time even though receipts at 40,700 were 6,000 larger than last week. The big gain was on tops, \$15.15 being paid for some heavy cattle. The highest price for the same week since 1920. However, this was out of line with the market in general and was due entirely to the extreme scarcity of finished heavy cattle. Best yearlings brought \$14.20, the highest since 1920. Average price highest in some time. Average price for the week at \$12 compared with \$11.85 last week, \$13.75 a year ago and \$13.05 two years ago.

Consumption of Meat

A slight decrease in total meat production and consumption in the United States last year as compared with 1928 is shown in a government report, which places total production of dressed meat, not including lard, at 16,803,000,000 pounds in 1929 as compared with 16,995,000,000 pounds in 1928.

Produce Market Review

THE Philadelphia egg market showed a weaker tendency at the opening of the week with prices declining slightly. Trading slowed off as buyers had purchased more than their holiday requirements. Fairly liberal arrivals and offerings of nearby eggs combined with pressure to sell result-

ed in additional declines as the week progressed. Supplies accumulated despite the fact that receivers of prices were willing to push sales. Prices apparently did not enter into the situation greatly as the trade was merely off the market and refused to operate beyond their most urgent needs.

The New York egg market was steady during the latter part of the week. Fancy brown eggs were firmer, but nearby white eggs were rather quiet. There were 7,100 cases of eggs exported to Argentina from the port of New York and this helped the market. Prices of 92 score butter dropped a full cent during the week. Shipments of old potatoes dropped off during the week and the movement of new stock from Florida and Texas was of moderate volume. The early crop in Florida has been showing advanced yields and the best stock has advanced about \$1 per barrel. This has been a help to holders of old crop potatoes. Both Maine and Pennsylvania stock sold mostly at \$3@3.25 per 100-pound sack.

Apples Quiet

Apple markets were quiet although prices of good stock held firm. The shipments are decreasing and are now averaging around 100 cars daily. A few scattering shipments of Pennsylvania stock are moving but about one-fourth of the total movement is from New York state.

FEED MARKET

The following quotations are for transit and nearby shipment April 25, according to the U. S. Bureau of Agricultural Economics. They show the approximate cost of feed per ton (all in 100-lb. sacks) and grain per bushel in carlots arrival draft basis delivered on track at Philadelphia and Scranton rate points: Bran, \$36@37.50; standard middlings, \$35.50; flour middlings, \$37; cottonseed meal, 43 per cent, \$49; gluten feed, \$37.50; No. 2 white oats, 54¢; No. 2 yellow corn, 51¢.

Butter Unsettled

Butter markets were unsettled during the week. Trading was quiet, with buyers confining their purchases to most urgent needs. Prices tended lower with most receivers making an effort to keep their stocks at the lowest possible level. Receipts of butter at the eastern markets were larger than during the previous week and this was the chief cause of the unsettled condition. Prices of 92 score butter dropped a full cent during the week. Shipments of old potatoes dropped off during the week and the movement of new stock from Florida and Texas was of moderate volume. The early crop in Florida has been showing advanced yields and the best stock has advanced about \$1 per barrel. This has been a help to holders of old crop potatoes. Both Maine and Pennsylvania stock sold mostly at \$3@3.25 per 100-pound sack.

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Harold Graybill of the Dauphin County (Pa.) Calf Club and the Holstein heifer with which he won in the club contest at this past winter's State Farm Products Show.

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There's no reason
why every farm
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POWERED by electric motor or gasoline multi-motor, representing the greatest value and serviceability of any washer, there is no reason why every farm home shouldn't have a **NEW Maytag**. Its reasonable price is eventually offset by the saving in clothes. The hours saved each washday may be spent in other profitable ways. Divided payments make the purchase easy.

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THE MAYTAG COMPANY, Newton, Iowa

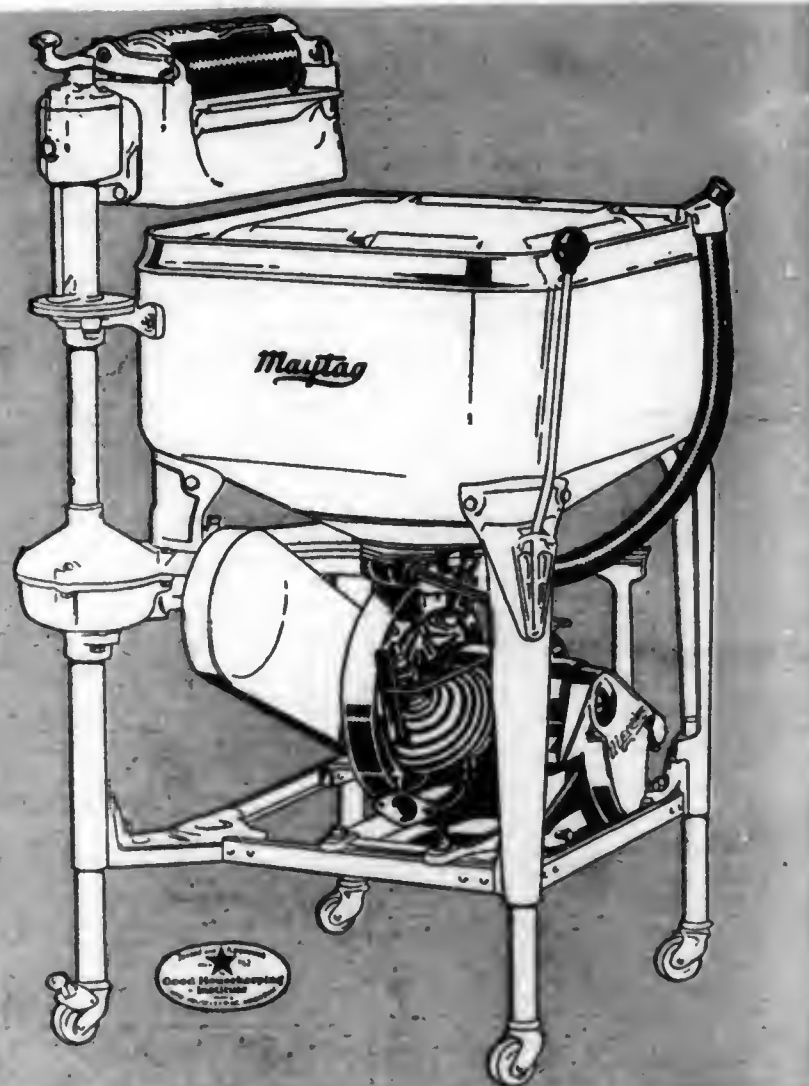
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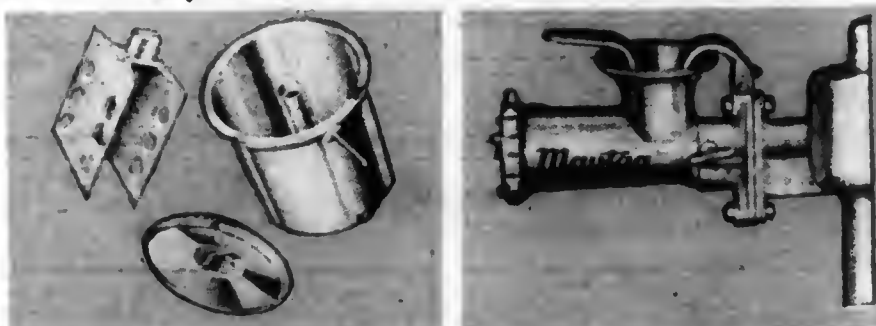
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FREE

Write or phone the nearest dealer for a Maytag. Let it do a big washing for you. It will take but an hour or two and you will be surprised at its thoroughness and convenience. If it doesn't sell itself, don't keep it. Divided payments you'll never miss.

Maytag
Aluminum Washer



A \$4,500,000 PRODUCT



Power Churn Attachment

THE Maytag churn attachment is an aluminum churn of 3 gallons churning capacity. It sets over the agitator post and utilizes the same power that washes the clothes. Water in the washer tub keeps the cream at the proper churning temperature. Easily cleaned, durable and a time and labor saver.

Power Meat Grinder Attachment

By simply lifting off the Roller Water Remover, this New Meat Grinder Attachment may be set over the shaft head of the power leg. Grinds sausage, mince meat, chops nuts, raisins, fruit, relish, etc. Saves time and labor. The churn and meat grinder attachments are extra Maytag equipment, sold at reasonable prices.

F 5-30

PENNSYLVANIA FARMER

Published
Weekly

Established
1877

Consolidated with PENNSYLVANIA STOCKMAN and FARMER

May 10, 1930



Springtime

Philadelphia

Pittsburgh

Harrisburg

Blight, Bugs, Leaf Hopper and Flea Beetle CONQUERED



A Healthy Crop of Potatoes Made CERTAIN by Niagara Dusts and Dusters

NO more worrying or trusting to Lady Luck! Scientific crop protection has arrived with Niagara—scientific because it has been tested again and again in actual practice and found thoroughly successful. Now when you use Niagara dusts and dusters on your potatoes, you utilize a method which has the endorsement of some of the nation's best known growers.

It's a simple operation to protect your potato crop the Niagara way! The whole procedure can be accomplished quickly (Niagara dusters are super-efficient, you know) with a saving of hours of your time. No water is needed, of course, and very light-weight equipment is used. Look into the advantages Niagara Dusts and Dusters can give you . . . Niagara Copotex, a powerful insecticide, kills bugs without injuring foliage; Niagara Copodust is a disease preventive that can't harm the plants. Dri-Fog Dusters are solidly built after improved designs. They are light in weight, and special dusting mechanism and nozzles give thorough, economical distribution of dust, as well as complete coverage of foliage.

You're not satisfied with "half-way" crops.

Write for full particulars on potato dusting.
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No crows in your corn all summer

—if you coat the seed with Stanley's Crow Repellent. No waiting for seed to dry. Stanley's Crow Repellent will not clog planter. Non-poisonous but positively keeps out crows, gophers, moles and other corn field pests. Saves time and money in replanting.

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"Your repellent is the only thing I have used with complete success." S. Shepherd, West Townsend, Mass. "Crows were in my field every day but pulled no corn," writes J. A. McDonald, Clarion, Pa.



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A non-clog sprayer. Revolving agitator with brushes cleans suction strainers. We make hand sprayers, orchard power rigs, traction truck crop sprayers. A sprayer for every need, high pressure guaranteed. They double your dollars. Tell us your problems. Our 47 years' experience at your service.

FIELD FORCE PUMP CO., BOX M, ELMIRA, N. Y.

Farm Facts and Fancies

By ALVA AGEE

THERE was a time when the sheep was about the only political member of the farm products family, being concerned chiefly with the tariff. Now that farming interests are politically minded, as they should be, I wonder what will be their relative power in the Congress elected after state representation in it has been reapportioned on the basis of the census just taken. We have been doing business on the basis of the census taken twenty years ago.

Of course the Constitution provides for reapportionment after every decennial census, but no Congress since the census taken in 1920 was willing to tackle the job. It would have meant cutting down the number of representatives from many rural states and increasing those from industrial states. Within the states it would have meant giving more members to big cities and cutting down country districts. Much more important to some, it meant losing their jobs.

Reduced Political Power

Ten years more have made matters worse from the farmers' viewpoint. Cities and industrial states have grown rapidly, and the farming population nearly everywhere has dwindled as machinery on the farm has replaced human labor. Reapportionment will come this time because the Congress decided two years ago to obey the Constitution when the figures for this census became available.

Rural sections of many states will lose representatives as cities within their borders gain, and our farming states will lose to the industrial states that have gained rapidly in population. It is a safe guess, probably, that the number of members of the lower branch of the Congress that will feel dependent on the approval of farmers will be one-fourth less than it is today.

This readjustment affects us another way. The conventions that name candidates for President and make platforms are composed of delegates whose number is proportionate to congressional representation. Farming states will have a smaller voice in naming candidates and they will have less effect on the electoral vote as a result of this new count of our population. The census of 1930 is going to give us something to think about.

"You Write It"

A thoughtful reader points out that something is woefully wrong in the world when a part of the people has more wheat and other stuff than it can sell and another part of the people, numbering millions, is starving for food. He believes that this country would be better off if the surplus were given to these starving Orientals, and yet fears that the suggestion would be rated as childish. He closes his letter by saying: "You write it, I can't." Neither can I write it in a way that would not bring jeering. We are too immersed in our materialistic philosophy of life to see things in the world as they would appear to one looking on from the outside.

China's Plight

We must grant the difficulties. Every people must work out its own destiny in great measure and rise largely through its own struggles, and those who do not want to feel responsibility say this with a smug satisfaction. I am told that much of China's present hunger is the direct result of failure in government. While we attribute that failure to lack of much true national spirit in that country, western Europe has not treated the country well, reducing its chances of coming along and of gaining control of itself.

Its concessions there darken China's future by taking from national authority. They directly affect only a

minor part of the population, but they darken the horizon because the Orientals must work up along the way that the Oriental mind believes is good. China would be in a different plight today if the Christian nations of the world had shown Christian qualities in their contact with her.

If we have the superior mind and business ability that we credit ourselves with, we cannot go along blameless when millions starve and we have wheat we cannot sell. The Orientals should be eating our surplus bread and we should be getting a fair price for what is eaten elsewhere. What is a workable plan? I do not know, but it would be good for us in every way if we could find it and use it. The presence of millions of starving human beings in our world is an indictment of civilization.

Trend of Land Prices

A reader asks what my judgment is regarding the trend of land prices. Every one has a right to his guess. A study of government figures and reports from banks indicates that prices of farms have struck bottom for this time. Forced selling has decreased and payments are being made on mortgages. The normal thing is that after such a depression as followed the war we go up-grade. Pretty dependable men believe that there are many farm bargains for that reason.

The better purely commercial bargains are where the people do not add materially to price for "home" value, as is done in some of the older sections of the country. The home value is there all right but it does not pay cash dividends, and the question facing one proposing to go heavily into debt for a farm, as this reader is half inclined to do, is whether he can pay out when price is considerably higher than that account.

The Potato Farming Outlook

The same reader asks whether I think potato farming will remain as profitable in the future as the average of recent years. I dare not try to say. As far as general industrial conditions go, I feel tolerably sure that the slump in business that started the latter half of last year is not the beginning of a series of years of hard times. We should gradually find ourselves coming back into a state of industrial prosperity.

It looks like we shall have a continuing surplus of grain and meat as farm machinery and fertilizers come more into use in the central states, and nobody knows how much this may influence the acreage of potatoes. It probably will increase. The southern states incline more and more to fill the summer markets, and that influences price when the northern crop comes to market. The heavy fertilization of potatoes is raising the average production per acre.

It seems likely that farmers who stick to old and somewhat careless methods, neglecting seed selection and spraying, are going to lose out while skillful growers will continue to make money. But the potato is a willful vegetable and one never knows what it will do.

New Zealand Spinach

THIS vegetable is not a true spinach. Botanically the plants are not closely related, but New Zealand spinach has the same uses as common spinach, and some people like it better.

It has one advantage over common spinach in that it does not bolt to seed in hot weather. It does make some seed, as a matter of fact, but continues to produce leaves for green at the same time. The seed is slow to germinate and should be soaked forty-eight hours before it is planted.

Space wide, at least fifteen inches between plants, as it is a rampant grower. N. Y. College of Agr.



A WELL-KEPT hedge serves the dual purpose of ornamental shrubbery and fence. It makes a dense growth and must be trimmed back now and then to keep it within reasonable bounds.

The picture above shows how a hedge can be cut back and leave a straight and even topline. Stretch a wire or cord along the side about the height wanted and trimming will be an easy job. Luke W. Martin. Lancaster county, Pa.

Retired, But Not Tired Farmer

SOME years back I realized that my wife and I could no longer carry on the active work of a 160-acre farm. About the same time I found out that our plan to retire and live in town, turning over the farm on share to my son, would not provide enough money for us to have the things to which we had been accustomed. So putting our wits to work we bought an abandoned but substantial four-room cottage on a neighboring farm and moved it to the orchard of the home place, near enough and not too near the family of our son. We reserved a garden, chicken yard and of course a little lawn.

From the beginning it has been a strictly business proposition. They invite us to a meal and we invite them. The grandchildren work for us they are paid on the spot with fair wages. I drive a team or do like work that a man of my age can do. I take my fair pay, and then in turn pay for cultivating my garden with my son's machinery which saves much hoeing.

All Treated Alike

None of the other children can say that Tom, the son at home, has anything on them, to use a slang expression, for all are treated alike. I bought a good second-hand automobile for our use and get one of the grandchildren to drive it, always paying for the service. It makes us feel independent and pleases the young folks, for it is some sacrifice to drive at our rate of speed and occasionally give up pleasures for us.

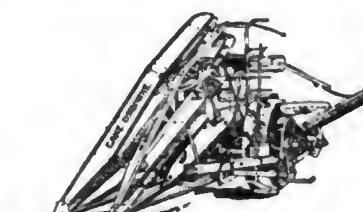
My wife lives over the past on such occasions as threshing by peeling potatoes, shelling peas and otherwise having some part in the big meals, while I enjoy the light tasks like putting on a board that has been accidentally knocked off and keeping up the orchard. We are retired, but not tired. Also we are saving some money both families—in spite of high taxes. Besides that the farm is growing in fertility and money value, and all the children are as contented with the management as we are. If that isn't eating one's cake and having it, what is? Experienced.



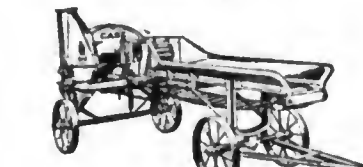
Don't TAKE CHANCES WHEN YOU HARVEST



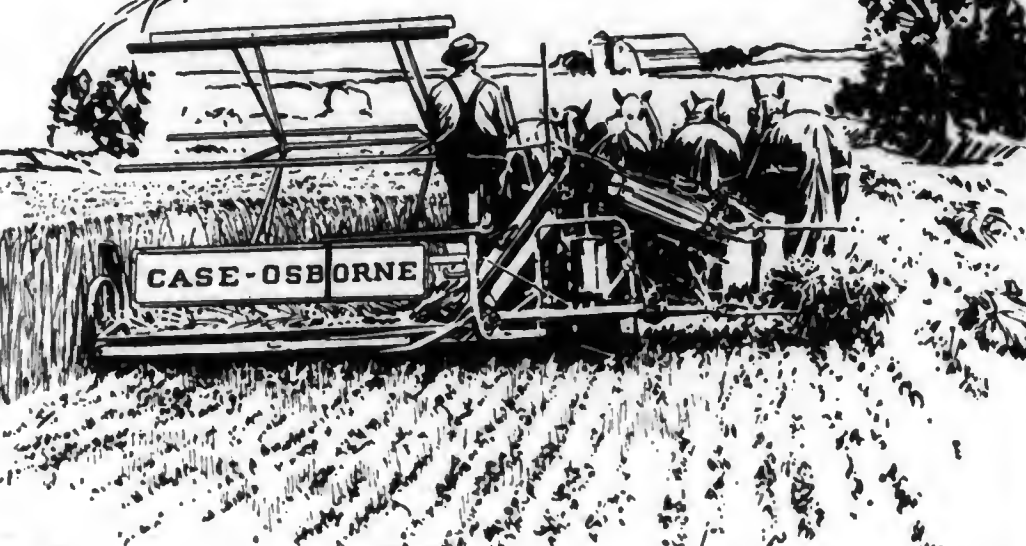
CASE GRAIN DRILL—gives you a better stand, bigger crop. Saves seed. Steel construction gives great strength with less weight.



CASE-OSBORNE CORN BINDER handles easily for you and the team. Speeds the work—makes harvesting easier.



CASE SILO FILLER cuts up to 30 tons per hour. Does a clean, fast, thorough job.



AFTER ALL the time and money and care spent in bringing your crop up to the point of harvest, don't take chances with any Binder but the best.

The Case-Osborne Grain Binder has always given long, reliable service and the name "Case" on the machine is a guarantee that it always will. It owes much of its worldwide popularity to these exceptional advantages:

- 1 Gets all the grain regardless of condition—straight or tangled, standing or down, tall or short.
- 2 Easy and comfortable to operate—a single spring-assisted lever takes care of moving the reel. Easy on the team—roller-bearing equipment.

3 Bundles are nicely shaped—easy to shock, load and pitch. You can make them any size you like.

4 Constant, steady running, without stops and delays because of extreme care in selecting only the best materials and using experienced workmanship. Thorough knotters tests before Binders leave the factory assure dependable, trouble-free operation right from the start.

There are many other features you have to see to appreciate. Ask your Case dealer to show you the famous Case-Osborne Binder. You'll find more downright value in it than you've ever seen before. Write direct to factory for free folder.

J. I. CASE CO., INC., Dept. 201-E
Racine, Wisconsin

CASE

QUALITY MACHINES for PROFITABLE FARMING

Harbingers of farm prosperity

Advertisements point the way for the prosperous farmer . . . read them.

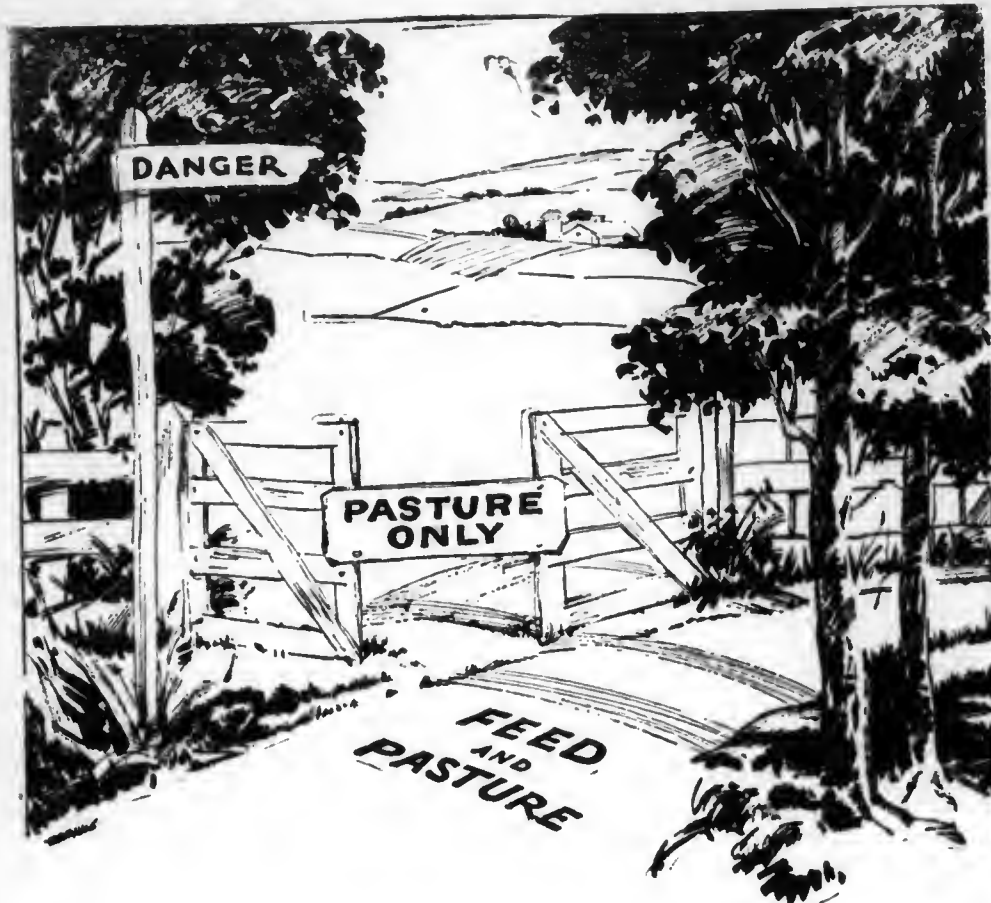
AGES, it seems, since we used the top buggy to go to town. A. Wouldn't think of it now—except for "joy-rides." Ages, too, since Mother sold her kerosene lamps. Yet not long ago—when you figure time by years.

The auto, the lighting plant, the telephone, a dozen other things you now possess, were thought of as luxuries which the average farmer could not buy. Today they are a necessity on every farm. All of them were advertised before becoming universal.

The advertisements in your farm paper are forerunners of farm prosperity. They introduce progressive methods and popularize them. They show how to save time and money.

Read them. Mark those in which you are particularly interested. Tell the dealer what brand you want. Give him the advertised name of the product. It will pay you to buy advertised goods.

Remember that the manufacturer cannot afford to "spot-light" inferior goods. His branded merchandise must meet with your approval—must give you fair quality for a fair price. He must keep pace with progress to insure you—as well as his own—prosperity.



don't let your Profits get lost in the grass

FREE DAIRY BOOK

Send for our free dairy book. It was written by two widely known dairy authorities and covers breeding, feeding, sanitation, and production methods. You will find it a very valuable book to have. Fill out the coupon today.

Records of more than 13,000 cows in a western state show that cows with an average of 500 lbs. of butterfat a year, at a feed cost of \$92.00, averaged \$176.00 profit—in contrast to cows making 100 lbs. of butterfat at \$40.00 feed cost but only \$18.00 profit.

Milk profits are made by good feeding. Keep that in mind when pastures begin to turn green. Graze your cows if you have good pasture, but, remember, pasture alone is not enough. A cow producing 30 lbs. of milk a day requires nourishment equal to 175 lbs. of grass, but she cannot eat anything like that quantity of grass. A good dairy feed is needed, and the better the feed the more milk you get.

Protect your profits and make your pasture a real asset by feeding Gold Medal Dairy Ration—a "Farm-tested" ration as scientifically blended as the famous Gold Medal "Kitchen-tested" Flour. It is made by the same specialists. The thousands of dairymen who feed Gold Medal know from experience that it is the most profitable ration they can buy. Besides getting more milk Gold Medal Dairy Ration keeps cows in good condition.

WASHBURN CROSBY COMPANY
Minneapolis - Kansas City - Buffalo



**GOLD MEDAL
FEEDS**
"FARM TESTED"

Why not now?

WASHBURN CROSBY COMPANY—Dept. D-53—MINNEAPOLIS, MINN.
Please send me free copy of booklet "More Milk—More Money".

Name _____ Address _____
Town _____ State _____
My Feed Dealer _____



I DO not know that it would have any real value, but I wish the results of the census now being taken would show how many people born on farms are now farming as a life's business; also how many town and city people moved off farms and entered other callings. I have been thinking on this subject a good bit of late, and, as far as my personal acquaintance goes, I am astonished at the facts.

Not to go outside my own family the figures are startling. In my paternal grandfather's family were nine boys and two girls. All married and raised families. Seven of my uncles and one aunt lived on farms and farmed most of their lives. The grandparents referred to had 43 grand children, the children of the eleven sons and daughters. Thirty of the grandchildren are boys and thirteen are girls. Now comes the startling fact. Only one of the 30 grandsons is a farmer living on a farm, and so far as I know only one of the granddaughters is married to a farmer!

On my mother's side are fewer descendants, but not a single one of them is living on a farm.

Both my grandfathers, as were their fathers before them, were farmers. They knew nothing else—thought of nothing else. In fact, aside from some lumbering, there was nothing else to do. On my wife's side of the house the case is no different. She is one of eight children—five boys and three girls. Her father was a dyed-in-the-wool farmer. He took pride in it and added dignity to the calling. All occupations were second in importance to farming in his mind. Of these eight children, one son is manager of an institutional farm and one daughter is married to a farmer. Of the 25 grandchildren in this family, one daughter married a farmer!

I believe I could relate a number of instances in my acquaintance, even if not so accurate, which shows how the farm population has changed in the last fifty years. I well remember that one of the concerns of farm parents in my boyhood days was how to keep the boys on the farm. The generation of which I speak scarcely ever held a meeting that they did not discuss this subject. Speeches were made and essays without number were read. But the above figures show how vain were their efforts.

But what would have been the result if they had been successful in persuading all the young people to take up farming? The farmers' great handicap today is surplus production—too much wheat, too much cotton, too many potatoes, too much livestock. Improved methods and modern machinery have enabled the one boy in ten to do more than all could have done by the methods used by my grandfathers.

But what has been the result in the fields to which the children and grandchildren flitted from the farms? Are they faring as well, and are they as good and reliable as were the concerned grandparents? For be it known that the parents who were so solicitous to keep the boys and girls on the farm were concerned chiefly about their moral and spiritual welfare. They honestly believed that an disaster awaited those who left the farm for other callings that sin and poverty would be the lot of those who deserted the farm. Were their fears justified?

Of course it was impossible to foresee the changes in life that were to

come. The business and social world have been revolutionized in the last thirty years. There are no longer the high walls created by class consciousness which separated communities and classes. There has been a leveling-up as well as leveling down. Good roads and modern methods of transportation have made common the best as well as the worst in human practices. It would be a hazardous thing to say that the countryside is free from the baneful influences that were once confined to the cities.

April is near its close as this year. We have had two mornings on which ice appeared—once as thin as single window glass. Peaches and cherries were in full bloom. Although the peaches show little or no bad effects at Neshaminy Gardens still only time will tell whether or not they have been injured. The paragraph which shot some through a week ago is at a complete standstill. An application of fertilizer was given it today, something that should have been done last July instead.

Friendly Talks

By
Edgar L.
Vincent

A MAN stood at the far side of his field and looked back over the furrow he had turned. "That's pretty good," he said to himself. "One or two little balks, but can do better than that." Then he started back over the field. Bound to do better.

And it is a fact that the better a man does today the better he can do tomorrow. The axe blow struck true and true this time makes it easier to strike another still truer next time. The law of nature makes it so. The law holds good with the artist. The picture he paints this time is a prophecy of the finer production of the future. The heart of the young clerk bounds when he makes a good sale, for he knows it will help him to make a better one later in the day. But it will not be so unless he burns in the heart the will to make the life of the present better than that of the day gone by.

A man may run over the field with his plow or his seeder, but his drill year after year as long as he lives and at the end leave it poorer than it was in the beginning, simply because he is not inspired by the spirit of ambition. Thousands of men do this. "Going back," the farmer tells the story of every such farm. The life, for there is no standing still, the farm which does not improve is a way backward.

One of the finest things about farming more of self into the farming today than we did yesterday is that such farming lifts the entire community to a higher level. If I see raising better crops, making a better home more beautiful and attractive, I at once think, "That's good, can do it myself," and I try to do it. So from farm to farm the demand to push on spreads. We can all take a hand in this work. Shall we not do it?

A THREE-YEAR experiment by Correll gave the highest yield for potatoes planted May 20. Late plantings showed decreased yields.

More Readers on Farms in Pennsylvania than Any Other Farm Paper

PENNSYLVANIA FARMER

Published Weekly Established 1877

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Pittsburgh, Pa., May 10, 1930

No. 19

Licensing and Bonding New Jersey Buyers

Legislative Enactments Designed to Protect Fruit and Vegetable Producers and Dairymen

By WILLIAM B. DURYEE, Secretary
New Jersey Department of Agriculture

THREE legislative statutes in New Jersey are especially designed to protect the producer of farm commodities from fraud and deception on the part of unscrupulous dealers and distributors. These are: first, an act requiring the licensing and bonding of commission merchants, salesmen and brokers (Chap. 93, Laws of 1930); second, an act providing for the licensing and bonding of all dealers in milk and cream who purchase from producers (Chap. 74, Laws of 1917); and third, an act to regulate the sale and delivery of peach, plum, apple, pear or cherry trees under contract guaranteeing said trees to be true to the name under which they are sold (Chap. 28, Laws of 1926).

The first statute referred to is far reaching in scope and revolutionary in type so far as the state of New Jersey is concerned. It requires that commission merchants, dealers and brokers must not engage in business after July 1, 1930, unless such person, firm, association or corporation be duly licensed to engage in the business of buying any perishable agricultural commodity for the purpose of shipping, or for sale, resale or manufacture. The movement toward the passage of this act came from a group of producers who had lost money through the defalcation of a dealer who had purchased their farm produce. The means provided in this law for protection of growers is that buyers shall annually, on or before June 1, file an application with the Secretary of Agriculture of the state for a license, giving definite information regarding to the applicant and the nature of his business, and it requires further that the application shall be accompanied by a surety bond in the sum of at least three thousand dollars. This bond is subject to the approval of the Secretary as to form and sufficiency and is to be deposited with him. When the application and bond are approved, the applicant, on payment of a two-dollar fee, is given a license, good until the first day of July next following.

Effectiveness Depends on Growers

The law provides that should a dealer default in payment of any money due to any grower the grower may file with the Secretary of Agriculture a verified statement of his claim and make request to sue upon the bond. On obtaining such action the grower may prosecute his claim in any court of competent jurisdiction. This means that the action must be brought by the grower himself and the bond is on file which guarantees payment to him upon a favorable decision by the courts as to the grower's case. In other words, the judgment is obtained by the grower and the bond may be used for payment of the judgment.

The act specifically exempts transactions in which the grower receives cash at the time of the transaction and payment of the amount due him in any transaction involving not less than twenty-five dollars, and does not apply to any dairy incorporated agricultural cooperative association. While the act makes it mandatory on persons or corporations engaging in the business of commission merchant, dealer or broker to secure such license, it authorizes the State Department of Agriculture to bring suit for a fine of not more than \$100 and a penalty in the event that such persons operate without a license, the fine being a minimum of \$10 and a maximum of \$500.

This act is extremely broad in its

one-half times the estimated maximum monthly indebtedness.

This law gives the Secretary the right to exempt from the act those dealers who buy from not more than two producers or whose total purchases of milk do not exceed the sum of \$200. It provides further that a license shall not be issued if a justified complaint has been established against the applicant during the preceding year.

The number of milk dealers in New Jersey who are now licensed is 232 and there are on file bonds totalling more than one-half million dollars. The provisions of this act are invoked with great frequency. Its operation has been welcomed by the honest buyers who predominate in the industry, and it protects such buyers from unfair competition, as it protects farmers who utilize its provisions. The Secretary is given certain discretionary powers as to the application of the bond and the law prescribes methods by which complaints by farmers shall be filed and the action which shall be taken upon receipt of such complaints. In this law the action is brought by the Department, acting upon the complaints of farmers, rather than by the farmers themselves who have been defrauded.

"True-to-Name Fruit Law"

A similar act on the statute books of the state of New York was recently questioned as to its constitutionality and the objecting milk dealer was upheld in his contentions by the Supreme Court. The case was then carried to the Court of Appeals by the Attorney-General for New York and this Court reversed the decision of the lower body, stating that this act was entirely within the rights of the Legislature and in the decision quoted the necessity of payment to farmers for milk if cities are to be supplied with that commodity on a stabilized basis.

Besides New York and New Jersey, other states which have passed similar laws are Connecticut, New Hampshire, Rhode Island, Vermont and Wisconsin. It is believed that this decision by the New York Court of Appeals will settle the questions that have been raised in New York and elsewhere regarding the validity of such licensing statutes.

The third act which will be described briefly is known as the "True-to-Name Fruit Law." While this has not been invoked to anywhere near the degree that the milk dealers' licensing act has been or that we anticipate in the new law regarding the licensing of produce buyers, its presence on the statute books gives protection to those who wish to use its provisions. The law is applicable under these stipulations:

First, there must be a contract guaranteeing said trees to be true to the name under which they are sold; second, the purchaser of such nursery stock is required to file with the Secretary of Agriculture a plan of planting within thirty days after the trees are planted.

In most cases the seller of nursery stock explicitly refrains from giving any guarantee as to the truthfulness of varietal type and name of the tree he is selling to the fruit grower and the grower purchasing the trees depends more on the good faith of the nurseryman than he does on invoking this act through action by the state. (Continued on page 28.)



"A LITTLE FARM WELL KEPT"

This is a photo of Steve Kissel's home in Marshall county, W. Va. Mr. Kissel's farm consists of only 20 acres, but he practices intensive farming and clears nearly \$1,000 every year raising fruits and vegetables. He has over fifty bird boxes on this little farm. Birds of many kinds help keep the insects cleaned up. His farm is free from weeds and is one of the best kept and most attractive farms along U. S. Route 250 in West Virginia. C. B. Altman.

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OVER A MILLION

OVER a million cattle on Pennsylvania farms are now under supervision for control of tuberculosis. This is nearly three-fourths of the state's cattle population and indicates the extent to which testing is followed. The first of April 3,590 herds were on the waiting list for testing. Public sentiment, city regulations and farmers' interests are working together to clean the herds of tuberculosis, and neither the dairy industry nor the consuming public is suffering thereby.

YOUNGER AUDIENCES

A FEW years ago, in commenting on sundry assemblies of farmers, we mentioned the large proportion of elderly men and the small proportion of young men in such meetings. Today we find a much larger percentage of young men, and they are progressive and apparently successful. The effect of work of our schools, our clubs and our extension forces is manifest in several ways and this is merely one of them. It is a sign of promise that our speakers now face younger audiences than ten or twenty years ago.

INSTITUTE OF COOPERATION

THE sixth annual session of the American Institute of Cooperation will be held at the Ohio State University, Columbus, beginning June 16. The Institute has come to be much more than a meeting of those concerned in cooperation. It is a school for the training of those engaged or to be engaged in that work and extends over five weeks. The training school idea is a sound one, for on no subject is there more need of education. Since among the several courses there is one on economics we rashly venture a suggestion: Let our agricultural leaders drop their leading strings long enough to take it.

A CONTRAST

SOME years ago, when our youthful county agents were starting their work, we heard many complaints to the effect that they were not endowed with "practical" farm wisdom and therefore could not be of much value. The boys soon knocked this idea into a cocked hat. Later on some of them left their salaries to become "practical" farmers and in nearly all cases successful ones. Today another objection is raised to the employment of county agents. These men who were considered of no "practical" value ten or fifteen years ago are now blamed for the

PENNSYLVANIA FARMER

overproduction of everything of which there is a surplus. Isn't it peculiar that the same kind of men who discerned the incompetence of the county agents years ago now discover their super-efficiency?

FROM LIFE

MANY years ago two men, both now dead, went into business together. Neither of them knew anything about book keeping but both were active and energetic. After they had gone along for some months, buying and selling certain machinery and appliances used largely by contractors, they sat down one evening to see how they had prospered. Their obligations loomed big, much bigger than their cash and their accounts receivable. They were feeling pretty blue when a friend of both came in and was asked to go over the figures. He called for their inventory, which they had overlooked. A list was made and they were surprised to know how much there was in it. The world seemed like a rosier place. Maybe some of us would find it that way if we made an inventory, not omitting therefrom some things hardly ratable in dollars.

FROM OBSERVATION

AFTER knocking about a bit in the Corn Belt and east of it we can't see evidence of reduction of acreage of staple crops. There is some evidence of a larger corn acreage, which will mean a larger winter wheat acreage next fall if the crop rotation commonly practiced in the past is continued. Another thing appears to be against reduction of crop acreage in territory where mechanical farming is possible. It is easier now to put in a large area than it was before the advent of mechanical power. The weather cannot interfere with planting when it may be done so rapidly as is now possible. When land can be quickly plowed and fitted usually it will be, regardless of the opinions or advice of anybody. Another influence contrary to the reduction of crop areas is the high rate of taxation made necessary by improved roads, schools and other public creations. There is only one way for farmers to pay high taxes and that is to produce something to sell, to raise something that can be sold or can be converted into a salable commodity, for taxes must be paid in cash. This influence likewise is more potent than any quantity of advice. We can't see how farmers who carry on at all are going to decrease total crop areas, though they may shift about somewhat from one thing to another. We can't see that they are actually reducing crop areas. And we don't believe they are going to do it.

MEN AND COWS

WE know that the average dairy cow of this day produces more milk and butterfat than the average cow of thirty or forty years ago. We know that breeding, feeding, culling, care, etc., are responsible for the difference. To what extent each is responsible we don't know, nor do we know just how much the improvement of the dairyman has to do with the improvement of the cow. Here are three herds in one county, all in cow-test associations for ten years. One herd has increased its average production per cow 6,493 lbs. of milk and 224.5 lbs. of butterfat since 1920; another herd has increased 6,220 lbs. of milk and 198.8 lbs. of butterfat per cow; and a third has increased 4,661 lbs. of milk and 159.1 lbs. of butterfat per cow. If we could get the owners of these three herds to tell just how it was done we would have three good dairy stories, and probably three interesting human documents as well.

INCREASING WHEAT AREAS

WHILE an agency of our government is advocating a reduction in the production of wheat the government of Australia

is not merely advocating an increase but proposes to put up a guaranteed price of four shillings a bushel to get it. The farmers of Victoria are asked by both federal and state governments to increase their wheat area to see these machines in operation on five million acres. They want a guaranteed price of five shillings a bushel, but will probably get four or less. The reason for such an increase in the face of high world production is that Australia's trade with Great Britain is out of balance. Australia needs something to export in order to restore what is considered the proper relation between imports and exports. Wheat has been chosen as a commodity which Britain must import and will import from Australia rather than from the United States or Argentina.

A DEMAND FOR REPEAL

A VIVID discussion of the Federal Farm Marketing Act, particularly the so-called stabilization feature of it, occurred at the annual meeting of the Chamber of Commerce of the United States last week. Chairman Legge of the Federal Farm Board and Secretary of Agriculture Hyde were the chief defenders of the Act. Its assailants represented many commercial organizations affected directly or indirectly by the operations of the Federal Farm Board and its subsidiaries. The defense was not impressive from the standpoint of the economist, but it was impressive in reminding the interests represented that they had received special consideration in legislation. After hearing both sides the delegates voted "with practical unanimity" for a resolution demanding the amendment of the Act to repeal the authority of the Federal Farm Board to use government funds to participate in business. That resolution is a rather ponderous document which we refrain from quoting in full. The essential part of it follows:

The anticipated benefits to the farming interest as a whole have not been realized. On the contrary there has been impairment of the market structure and prevention of support which otherwise would have been given to the marketing of agricultural products which were affected by the use of public monies. Without benefit to agriculture there have been imposed unbearable hardships upon business enterprises unable to maintain their position against discriminatory competition from the Government.

We accordingly express our continued opposition to the use of the Government funds in providing capital for the operation of agricultural cooperatives, and for the buying and selling of commodities for the purpose of attempted stabilization. We condemn as a permanent policy of Government the employment of public funds for the purpose of participation in business in competition with established agencies and support the proposal for amendment of the agricultural marketing act to repeal the authority of the Federal Farm Board to use Federal funds for such a purpose.

We advocate the continuance of the Federal Farm Board as a proper agency, conducted at Federal expense, for the gathering and circulation of authoritative information, for ascertaining conditions of overproduction, for advice as to its prevention, and for assistance toward the solution of the numerous and important business problems affecting agriculture both in production and in marketing.

Thus does the Chamber of Commerce of the United States demand that the government get out of business, after snoozing comfortably while Congress put it into business. Farmers have not had sufficient experience with official operations to allow them to determine the effects of government speculation under the name of stabilization, but that does not realize what these operations signify. They will probably demand the repeal of this feature of the Farm Marketing Act because of its effect on agriculture. Chairman Legge's comment on the Chamber of Commerce resolution is an appeal to prejudice rather than to reason, and the latter should prevail in the discussion of such an important economic problem as this.

May 10, 1930

THE two-day demonstration of labor-saving machinery which was held in North Jersey on April 25 and 26 and the large crowd of farmers who came to see these machines in operation on the farm of Paul Koskie, near Hackensack, emphasizes the interest of farmers in cutting their labor costs. This is particularly true of those vegetable growers of that suburban farm land almost within the shadow of New York City. Recent investigations show their labor to be the most expensive single item in the cost of producing vegetables, and that for every dollar received by the North Jersey vegetable growers for their crops approximately 44 cents must be spent for labor.

The field tractors created the greatest amount of interest the first afternoon. Eight different makes of tractors, four wheel drive, track laying and general farm tractors, were closely observed as they plowed and prepared the seedbeds for planting. Vegetable growers not only had an opportunity to see the several makes of garden tractors in operation, but were given the privilege to operate them under field conditions.

Besides a two-row power-driven celery transporter, there were dusters, sprayers, mowing machines, irrigation equipment and other machines of special interest to vegetable growers.

This demonstration, which was arranged by the county agents of Bergen, Passaic and Essex counties in cooperation with the agricultural engineer and vegetable gardening specialist at the Experiment Station, was welcomed by North Jersey growers and gave them an opportunity to compare machines in which they were specially interested.

GEORGE A. WHEATON, of Bridgeton; Roger L. Merrick, of Farmingdale; Ida Amelle Hammell, of Sparta, and Irma Riddle, of Belvidere, are the delegates from New Jersey who will attend the Fourth National Boys' and Girls' Four-H Club Camp, which is to be held in Washington, D. C., from June 18 to 24. From all parts of the United States club boys and girls who are leaders in their communities and states and who have developed outstanding club projects will gather for a week of training in leadership, citizenship and efficient club organization. These rural young folks return from the Four-H Club Camp with a better idea of how they can best aid in the development of farm life in their home community.

From the 6,000 or more members in New Jersey these four young farm leaders were chosen to represent the state. The selection was based on their records of leadership and accomplishment in club activities.

George Wheaton, who is only 16 years of age, has been active in dairy club work in Cumberland county for the past eight years. Since he first organized a Four-H calf club in 1922 his profits from cattle have already amounted to \$2,400. One of his bull calves was recently sold for \$125. His first purchase was "The Maple Lady," a pure-bred Guernsey calf, and three years later he obtained "Forham Good Boy," a Guernsey bull which was a gift from Joseph L. Hope of Madison.

George now owns eight pure-bred Guernseys, three head sires, a young bull, and five cows. Through membership in a local dairy herd improvement association he has kept accurate records on the cost of production of his herd. During the past five years he has shown his cattle at the Garden State Fair at Bridgeton, where last year he won \$108 in prize money, and for two years has shown at the Trenton Inter-State Fair.

When Roger Merrick, a senior in Freehold High School, goes to Four-H Camp he will be able to talk club projects with all the delegates. He is a versatile sort of chap in his agricultural interests, and, although his major interest is in dairying, he has conducted projects in poultry keeping, vine growing, gardening, corn growing and forestry. This 18-year-old club boy is the owner of a herd of seven animals, three of which are pure-bred Guernseys. Roger is not only recognized by other members as a judge of dairy cattle, but last year he won \$125 by showing his animals at fairs.

Ida Hammell has been an active Four-H Club member for the past seven years and during that time has helped to organize several new clubs for girls in Sussex county. She is 16 years of age, a sophomore in Newton High School and interested in club projects in food preservation, home management and tree making.

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New Jersey Farm Comment

By G. W. HARRIS

Irma Riddle, the other girl who will represent New Jersey at Washington, is the same age as Ida and a junior in high school. Six years of club work and leadership qualities have given Irma this opportunity to meet with Four-H Club leaders of the United States.

In choosing these four young folks as delegates to the Four-H Club Camp at Washington and in singing their praises, the work of the other 6,000 club members in New Jersey is not forgotten. Not all can be given this opportunity, an opportunity which should be prized by the fortunate few and striven for by all. Most community club leaders return from the National Camp with a broader outlook on Four-H Club work and with the realization that they are but a small part of a great agricultural movement, and this is as it should be.



This four-wheel drive tractor attracted much attention at the North Jersey machinery demonstration.

A CAMPAIGN to dress up Burlington county farms is directed toward all unpainted farm buildings in that county. Beautification is not the only objective—the value of good paint in adding to the life of buildings is recognized by all and cannot be emphasized too strongly. During recent years methods of applying paint to broad surfaces has been changing from the old hand brush method to a more rapid and labor-saving spraying system.

A barn paint spraying demonstration at the farm of Aaron H. Burtis on Saturday afternoon of April 26 drew a crowd of 150 farmers to witness the effectiveness of spray machines for the painting of farm buildings. A barn built 82 years ago received its first coat of paint on Saturday. The building is 47 feet long and 27 feet wide, with 20-foot posts.

Saving in labor in applying paint was most striking—two men working on the demonstration went up the ladders at 1:40 and at exactly 4:20 the barn was completely painted. It took but two hours and forty minutes to completely cover that building in a manner which brought many favorable comments from the observers.

While more paint may be used when a spray is used, the saving in labor in most cases will offset this extra expense. And with most farmers time and labor is a greater problem in painting than the cost of materials.

Mr. Burtis finished painting the remainder of his farm buildings last week. As a result of this demonstration many other farmers in the county are considering giving their buildings a coat of good paint with the sprayer.

SWEET POTATO production is an important industry to South Jersey farmers and in years past losses from stem rot, black rot and scurf have at times been serious. This has been true especially during dry seasons.

Dr. W. H. Martin at the Experiment Station has been working with growers for several years in an effort to find effective controls for these three common diseases. To reduce losses from stem rot he advises the growing of resistant varieties such as White Yam or Red Brazil, or the use of the

strains of the Yellow Jersey and the practice of seed selection.

After four years of research work in an effort to obtain a simple and efficient method of control of scurf and black rot Dr. Martin says:

"Through these investigations it has been found that dipping the fresh pulled sprouts in a suspension of organic mercury will greatly decrease the severity of scurf and black rot. In a test conducted in 1928, only 16.7 per cent of the potatoes from the untreated sprouts were free from black rot as compared with 81.9 per cent for the potatoes from the treated sprouts. In 1929, over 35 per cent of the potatoes from untreated sprouts were so badly scurfed as to be unsalable. In the three tests conducted in 1930 the increases in yield as a result of sprout treatments ranged from 10.5 to 54.1 bushels an acre.

"This method of disease control is simple. The organic mercury compound used is made up at the desired concentration in a wooden container. The sprouts are pulled and dipped in the solution. When dipping the sprouts, try to keep the chemical from the leaves of the plant. Only the underground portion of the plant should be dipped. After dipping, the sprouts should be placed in a container and transferred to the field of planting."

It will soon be time to consider vaccination of early hatched birds for the control of fowl pox. Recommendations are that Leghorns be vaccinated when they are four months of age while Reds, Rocks and Wyandottes should be vaccinated when five months of age.

The Bureau of Animal Industry of the New Jersey Department of Agriculture will work this year on the same basis as in 1929. They offer poultrymen in the state any one of three plans.

1. By making application to the Department of Agriculture, Bureau of Animal Industry, to have the work done by the state; a deposit of two cents a bird is required to cover cost of material and service, and must accompany each written application.

2. Private veterinarians to do the vaccinating; application to be made to the Department of Agriculture, Bureau of Animal Industry, for permission to use fowl pox vaccine. Upon receipt of application, permit will be sent immediately.

3. Owner to vaccinate his own flock; application to be made to the Department of Agriculture, Bureau of Animal Industry, for permission to vaccinate his own flock. Upon receipt of application, permit will be sent immediately.

THE first year of the New Castle County Cow-Testing Association closed on March 31st, 1930. Twenty full-time and three part-time herds were tested during the 12 months period. The butterfat production ranged from an average of 355.5 lbs. per cow to around 230 pounds with the complete association average of 286 pounds. These figures were given in the annual report of Mr. Alois Leinen, supervisor for the association during the year.

Other features of Mr. Leinen's report follow: Nine herds were above 300 pounds of butterfat; four above 290 pounds, six above 250 pounds and one below 250 pounds.

Mr. Carl Feucht of Elkton owns the highest herd in milk and fat production. His Holstein herd of 16 cows averaged 10,126 pounds of milk and 355.5 pounds of butterfat. With an average of 252.8 pounds of fat, the Jersey herd of Mr. J. Howard Mitchell of Hockessin was a close second, while the Holstein herd of Mr. Fred Stafford of Montchanin finished a close second in milk production with an average of 10,120 pounds. Mr. Stafford's cows had an average of 333.1 pounds of fat.

When figured on a comparable wholesale price basis, the Jersey herd of Mr. Willson Price of near Glasgow returned the most money per individual cow. Mr. Price produced butterfat at a feed cost of \$32 per pound and milk at a cost of \$1.51 per 100 pounds. His feed cost per cow was \$107.13 with the lowest feed cost per cow of \$84.14 going to Mr. George Pierson of Hockessin.

The Brookwood Farm of Mr. Henry B. Thompson near Greenville, managed by Mr. Geo. Fly, had the herd producing both fat and milk at the lowest feed cost. This Holstein herd of 13 cows produced butterfat at a feed cost of \$27 per pound and milk at the low figure of \$22 per 100 pounds. The feed cost to produce one pound of fat and one pound of milk was \$27.14. The feed cost for fat and milk was \$27.14 per 100 pounds.

Vacation Special to the Far West

As announced in a recent issue the Pennsylvania Farmer will run a farmers' vacation trip to the Far West this summer. It will be a personally-conducted, all-expense tour for farmers and their wives, starting from Philadelphia and Harrisburg on July 26 and returning 15 days later.

Special Pullman cars providing the utmost degree of comfort and convenience will be used. Food and service will be first-class and everything arranged to make a pleasant and profitable two weeks for farm folks who want a little rest from the strain of heavy summer work.

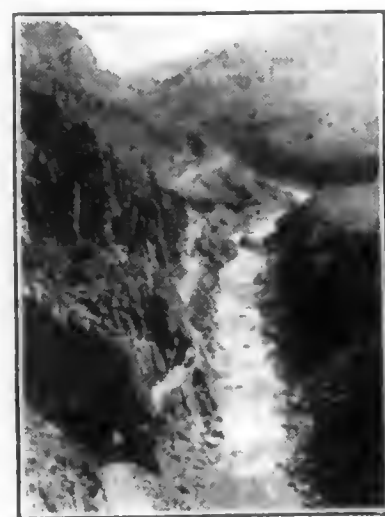
Leaving Philadelphia 8:40 a. m. and Harrisburg 11:37 a. m. the special cars will pick up tourists at Lancaster and other convenient points and go to Buffalo by way of Williamsport, passing through the Susquehanna valley and the wooded hills of northern Pennsylvania, crossing the rich fruit and dairy region of western New York. It will be a pleasant daylight ride and will land the travelers in Buffalo in time for them to see Niagara Falls illuminated by colored electric lights. Searchlights, covered with vari-colored screens, play over the falls at night, resulting in a most spectacular effect as the natural beauty of this famous cataract is further enhanced by artificial means.

At Niagara Falls we shall cross into Canada and take a direct route to Chicago by way of Detroit. A stop will be made in Chicago Sunday morning, permitting church attendance and a view of the downtown business section of that city.

After church Sunday morning the party will leave Chicago, travel through the great corn country of northern Illinois to the Mississippi River, a distance of about 125 miles, then follow the river 300 miles north to St. Paul. This ride along the banks of the Mississippi will be found particularly enjoyable, for the river will be in sight practically all the way. In fact the roadbed is so close to the river in some places that the country to the right is out of sight. This is part of the famous dairy section of Wisconsin and should be of special interest to dairymen of Pennsylvania and adjoining states.

A wheat field about ready for harvest is a pleasant sight. Multiply this by the thousands of acres in North Dakota and eastern Montana and try to imagine the picture. Or better still go on this tour and see for yourself the wheat field that stretches from Minnesota to the cattle country of Montana.

After the wheat come the cattle ranges which reach to the Rockies. And in the heart of the Rockies, on top of the world, is Glacier National park, a region so replete in scenic wonder that the government has set it aside for entertainment of the public.



Cody Road to Yellowstone Park. Shoshone River and Canyon.

Of this Park Mary Roberts Rinehart says: "Here is the home of a vanishing race the Blackfeet Indians. Here is the last stand of the

Rocky Mountain sheep and the Rocky Mountain goat; here are elk, deer, black and grizzly bears and mountain lions. Here are trails that follow the old game trails along the mountain side; here are meadows of June roses, forget-me-nots, larkspur and Indian paint-brush growing beside glaciers, snow fields and a beauty to make you gasp.

"I have traveled a great deal in Europe. The Alps have never held this lure for me. Perhaps it is because these mountains are my own—in my own country."

The next sightseeing stop will be at Spokane, Washington, known as the friendly city. A trading post in 1872 it now has a population of over 125,000 and is the hub of an enterprising region. So rapid has been its growth that the pioneer who laid out the townsite lived to see the city pass the 100,000 mark.

"Dropped down, like a jewel, in the midst of mountains dark with pines and surrounded by lakes and rushing, snow-water streams, Spokane at once charms the eye and engages the heart. There are no slums or tenement districts here. A debutante of a city it stands smiling and eager, in the midst of beauty."

A four-hour run from Spokane will bring us to

ON THE AIR

"THE Empire Builders" is the name of a nationally broadcast series of radio programs sponsored by the Great Northern Railway, which describes part of the territory to be visited on the Pennsylvania Farmer tour this summer. The programs are given each Monday night at 10:30 to 11, Eastern Standard Time, over a network of the National Broadcasting Company, which includes KDKA, Pittsburgh; WJZ, New York; and WHAM, Rochester. They will be found especially interesting to those planning to go on our summer trip and well worth listening to by any one, regardless of vacation plans.

Wenatchee, where a stop will be made to inspect the orchards of this famous apple region.

Early the following morning we shall reach Vancouver, British Columbia, where a boat ride over the picturesque Strait of Georgia to Victoria has been arranged and will be one of the most enjoyable days of the trip. The end of this eventful day will find us in Seattle, where the evening will be spent.

Seattle, "gateway to the Orient," has more to offer the tourist than we could even enumerate. "Sitting like Rome upon her hills, Seattle faces to the West the intimate though lordly Olympics. Mount Ranier looms close in the southern sky; Mount Baker to the north and the sun rises, rose-pink, over the majestic Cascades, mirrored in the waters of Lake Washington." However, we'll have to miss the sunrise if we get to the great lumber camp at Longview on schedule. Here is found the largest lumber manufacturing plant in the world, 79 acres under one roof and a daily capacity of nearly two million feet of finished lumber—enough to build about 200 frame houses of five rooms each.

Next comes Portland, Oregon, "city of roses," so-called from the rose-hedged streets stretching for miles in a riot of color. This place has come rapidly to the front as a wheat shipping port in recent



Top—Lake McDonald in Glacier National Park is surrounded by imposing peaks. It is one of the places to be visited on our western tour.

Right—Shoshone dam and reservoir on Cody Road to Yellowstone Park.



years. It is an industrial center and is situated in a country of mountains and glaciers and picturesque drives.

The following day will be Sunday, August 3, the forenoon of which will be spent back in Spokane for church attendance, leaving in the afternoon for the Gardiner gateway to Yellowstone National Park. Three days will be spent in the Yellowstone, most famous of national parks. A glimpse of its natural wonders will do more than a volume of words to show one why this place has gained its reputation. As one observer says, "There is nothing in all the world like Yellowstone National Park. You can't make it relative, because there is no standard of comparison. It is the real wonderland, embracing an aggregation of fantastic phenomena as weird as it is wild and remarkable." And when we leave the Park it will be by the famous Cody Road, "90-mile motor highway of scenic splendor with a thrill around every curve—and curves there are, aplenty."

Entraining again at the town of Cody (named for Buffalo Bill), we go to Denver, Colorado, in addition to being an interesting town from a historic standpoint Denver is in the vicinity of Pike's Peak, and near to Colorado Springs, of Garden of the Gods fame. Pike's Peak is of course one of the most famous mountains in the world, but before we reach it we pass through one of the richest farming districts in this country, the Poudre region of Colorado, where they raise sugar beets and feed lambs.

Leaving Colorado Springs we go to Kansas City by way of Pueblo. Then from Kansas City to St. Louis and on east, crossing the great wheat fields of Kansas about the time the wheat is harvested, and through the heart of the Corn Belt of Illinois, Indiana and Ohio when the corn is about tasseling, a favorable season to see this great native American farm crop at its best.

We cannot tell all about this trip in one or several issues of this paper, so we are having printed additional information in booklet form which you shall be glad to send to any one who writes for it. The booklet will contain complete costs, schedule of dates and stopping places, etc. And we shall be glad at any time to answer questions that occur to you in connection with this vacation.

We are printing a blank on this page for your convenience in requesting further information about the trip. Filling out this blank of course entails no obligation on your part, but will furnish you with complete details of the tour. Just fill in your name and address and mail the coupon to Tour Manager, Pennsylvania Farmer, 7301 Penn Ave., Pittsburgh, Pa.

Milly Woodbridge's Trek to the Pacific

The Pioneers of the Peace River Valley

By C. A. Stephens

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SYNOPSIS

Two New England families, who have gone to the Peace River country in Canada to make homes, find themselves in unfortunate circumstances when the railroad, on which they had based their hopes, is not built near where they have settled. One of the families, the Mastermans, moves away, but the other, the Woodbridges, remains in the vain hope that something will happen to create business for the sawmill they have built. The son and daughter decide following the Mastermans' example and go back to civilization while they still have enough money to make the journey, but the father refuses to leave his mill. At last, when it became evident that they could not live through another winter on the Peace river, and after their money had been spent, they started to walk across the thousand miles of wilderness, and mountains that stretched between them and the Pacific Coast.

while thus engaged one afternoon—a few days later—she made a gruesome discovery, one not without semblance of tragedy. Down near the river bank, at some little distance from the trail and the hillside where they were making their evening camp, Milly had come upon a little old log hut, evidently long deserted, about which had sprung up so dense a thicket of young firs and willows as almost wholly to conceal it from view. The squaw had come hastening back and by signs to Milly and Winthrop, induced them to follow her. The door of the hut was barred on the inside. Nearer the river stood a "cradle" such as miners make use of in placer washings for gold. Hard by lay a rusted shovel, pick and ax, also a crow-bar and a broken sieve. Plainly it was a miner's outfit, abandoned, to judge from appearances, a number of years ago. Placer mining for gold at gravel bars on the Peace has been going on for twenty



The Cheerful Plowman

USING THE LIBRARY

OUR library is filled with books that tell of plumb-ers and of cooks, of beautifying cozy nooks. They tell of horses and of cows, of flowing wells and bulging mows, of cultivators and of plows. Some of those books tell how to make the very choicest kinds of cake; they tell us when to hoe and rake. Some of them tell how plums are stewed, how coffee's made and tea is brewed, how broken furniture is glued. And other books in that great stack tell how to treat an aching back, and how to build a barley rack; they also tell of cures for pip and rheumatism in the hip, and how to mend a splitting lip.

There is no day in all the year when I don't have some good books here from out that stack of books, I fear. I have a book at my hand, where it is very quickly manned when I would man it, understand! When I've a gap between my meals I read a few improvement spiels, I read a mite on mules and seals, I read a snatch about the dog, a page or two about the hog, perchance a chapter on the frog.

I'm always learning something new, I'm grabbing thoughtlets, quite a few, on boiling beef and turkey stew. I'm learning as I go along, my brain is budding thick and strong. I feel neglect is cheap and wrong.

I have a neighbor who will doze for hours and hours in dumb repose, to that book stack he never goes. His talk is stale and has no kick, his company would make one sick, his brain is thin, his skull is thick. When there's a chance brought right to hand for him to join the reading band, he takes no lessons, understand.

I could not live unless I learned. With grim remorse I would be burned if chance for building brain I spurned. So I lug home three books per week and in those books I peer and seek. I would not be a mindless geek, I wish to have a fund of thoughts, good data on both buns and bots, a headful of forget-me-nots!

J. E. T.

years or more; and the fact of finding the hut there was of itself not surprising.

Winthrop now tried the door again; and evidences that the cabin had long been unoccupied were so clear that they did not scruple to break in. What they saw, however, when the afternoon sunshine once more lighted the dark and musty interior, gave them a distinct shock. There was a rude table with tinware on it, a bench beside it and beyond, against the wall of the hut, a sodden couch upon which reclined in a sitting posture the dry, shrunken brown skeleton of a human being. Milly drew back with a shudder. "Come away," she whispered. "Oh, he was murdered, or he perished there alone!"

Woodbridge, senior, however, thought that if possible something more should be learned concerning the unfortunate, in order that word might be sent to his relatives or friends, if such he had. Winthrop, accompanied by his father, went back and searched the hut quite carefully. In a mildewed garment, probably a coat, on the mouldered blankets of the couch, two letters were found, but both too much discolored by wet to be legible. On the table lay a government survey report of British Columbia, bearing date of 1903, also what was evidently a survey map of the course of the Peace River. One worn glove lay on the bench, and upon turning the couch over, the mate to it was discovered between the blankets. It was tied at the wrist with a thong, to form a kind of pouch, and the middle finger contained five ounces of fine gold grains, evidently cradled from the river gravel. There were no indications of violence or foul play. Death would appear to have occurred from natural causes. They took away the glove with its fingerful of gold, thinking that if by future inquiry the relatives of the missing man should be heard of, his little treasure could be sent them.

Next morning, too, Woodbridge and his son dug the semblance of a grave near the hut—with the dead man's rusted shovel—and buried the remains, wrapped in the mouldered blankets. Common humanity seemed to demand this last service in behalf of a fellow being who had perished there unattended and alone.

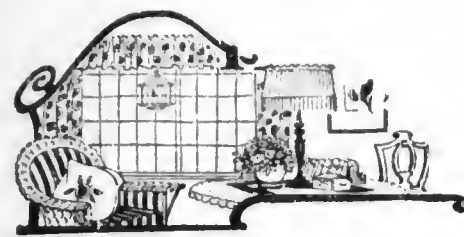
Several days passed ere our adventurous travelers could wholly shake off the gloom of this depressing incident. Other and more personal anxieties, however, soon distracted their thoughts.

TWO days later—the 16th day of their journey—the Woodbridges reached the junction of the two large rivers which unite to form the Peace, namely, the Finlay and the Wild Parsnip river, generally spoken of as the Parsnip. The Finlay rises far up in the Northwest, toward Alaska, and after a devious course of three hundred miles or more meets the Parsnip flowing northerly from equally distant sources far to the southward: two noble streams, each as large as the Connecticut at Hartford, or the Wabash at its junction with the Ohio. For size and length, indeed, the Peace might not inappropriately be compared with this latter large river of our Middle West.

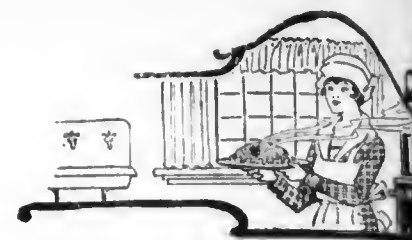
Here they were in not a little doubt as to the best route from that point on to Prince Rupert. There is a horse trail down the valley of the Parsnip, used for the most part by miners and prospectors, all the way to Fort McLeod and Fort Fraser. But this they feared would take them too far southward. To follow the Parsnip, too, they would have to cross the Finlay, now high from the melting of the snows in the mountains, and they had no means of ferrying across it, either for themselves or their stock. They determined, therefore, to proceed along the north bank of the Finlay on a generally westerly course. The trail by the latter stream, however, proved an exceedingly difficult one and easy to lose. In many places where the growth was thick a path had actually to be cut with an ax.

Cloudy, rainy weather now came on. Woodbridge, senior, suffered from a cold; and the night before the confluence of the Finlay with the Omineca was reached, a period of great anxiety for Milly and Winthrop began. Their father's cough had been worse for several days, and during that night they were startled by hearing him speak to them in a strange, muffled tone of voice. A hemorrhage from the lungs had been started by his cough. It was quite profuse; there was little they could do save to rekindle their campfire and give him warm drinks. He lost considerable blood from it before it ceased.

(To be continued.)



The Farm Home



Better Coffee

THE farm woman has the reputation of being the best all-around cook in America, better than her city sister and better than the professional chef.

One reason behind this reputation is that she is able to get manufactured food products for her table as easily as the city woman, besides having fresh produce always on hand. The second reason—and the most important—is that the farmer's wife must be a good cook because she has hard-working menfolk who require tasty, solid meals that build and sustain energy over long periods.

Most farm families drink a great deal of coffee without being aware of the fact that it is one of the most valuable energy-producers on their table. Coffee is not a food, but is what is called by scientists a nerve nutrient. It has been found by research authorities to stimulate both the muscles and the brain to increased activity without bringing about any injurious reaction. It is one of the few stimulants known to science that raises the efficiency of the human body and yet does not result in depression after the stimulation has worn off—the body returns to normal, not to subnormal.

Despite the fact that most cooks serve coffee at least once a day, a surprisingly large number do not know how to make it properly. Because it is easy to brew they do not pay attention to details essential to a perfect beverage.

In the first place, coffee should be fresh. After it is ground it should not be exposed to the air so that its fine taste will evaporate. Nearly all coffee now sold in packages is sealed immediately after it is ground, and consequently it is fresh when you buy it.

The Drip Method

When making coffee by the drip method the water should be brought to a boil and, while it is still galling, be filtered through the grounds only once. This operation should never take longer than two minutes, and even less if possible, because it will extract all of the good properties from the grounds without any of the bitter taste. Grounds should never be used twice—the first brew made from them will take out from 85 to 90 per cent of the essence of good coffee. Coffee brewed by the drip method, which is considered the best by many experts, should be ground to the fineness of corn meal.

When using a percolator let the water pass through the grounds just long enough to extract the good flavor. This depends largely upon the kind of coffee used and the fineness of the grind, and it can be easily determined by observation over a short period.

Coffee made in an ordinary coffee pot should be removed from the heat just as it comes to the boil, and then allowed to steep for from three to five minutes.

See that your coffee pot is kept clean and scoured so that fresh coffee will not have a stale taste. To be at its best, coffee should always be served piping hot. The correct proportion is one tablespoon coffee to one cup of water, with an extra portion of each to allow for evaporation.

Note:—Let us discuss with you any coffee problems that are bothering you. Write us freely asking any and as many questions as you wish. Enclose a self-addressed stamped envelope, and send your letter to Home Department, Pennsylvania Farmer, 7301 Penn Ave., Pittsburgh, Pa.

Old Fashioned Scraped Apple

A PRACTICAL nurse found the household disorganized because of the illness of Mother. The children were whining, the aged grandmother was complaining and everything was at "loose ends." In less than an hour peace and happiness had descended upon that noisy home and the patient required what had happened.

The nurse laughed and said that grandmother and all the children were happily scraping and

eating apples together. As a matter of fact the hastily prepared, and unsuited diet had left every member of the family lacking in the right kind of food, and the lengthy task of scraping and eating apples soothed the nerves and supplied the stomachs with fruit easy to digest.

If you don't believe it is soothing and helpful try it yourself. Sit down to scrape and slowly eat a large apple just as you did in childhood, and see if you do not feel rested and quieted in nerves. There is probably no scientific explanation, but our ancestors got a lot of profit out of eating scraped apple, giving the baby a helping now and then, and so can we.

Timely Tips

If you don't like vegetables very well, make it a point to eat them near the first of your meal while you are still hungry, and combine them with foods you like. They will taste better that way and they will benefit your health.

Roll dry bread into crumbs and keep a supply stored in a closed container, for quick use in making meat loaf, bread puddings, etc.

To simplify meal-planning where there are children in the family, be sure that you have the simple pudding or custard, the fresh or cooked fruits and the necessary non-starchy vegetables, prepared or ready for preparation, before you spend time making the richer cakes and pies for the older members of the family.

Soak fresh spinach in cold water a half hour before washing. When changing it from one water to another in the process of washing, lift it out, rather than pouring the water off the spinach.

A sheet of oilcloth laid with the shiny side down on top of the dining-table pad, under the tablecloth, prevents moisture from ever soaking through to the table top.

Be Friends with the Birds

WE have seven children here on our farm, and not one of them would willfully harm a bird. Bees of birds have lived about our home for the past fifteen years. We have no cats to frighten them.

One day a nest of young robins was attacked by a prowling black snake that had discovered who lived in the cedar tree. One of the children

hastened to notify me, and quickly the shotgun helped to scatter the snake in at least two pieces. The parent birds were almost immediately hushed, for they seemed to sense at once that the Old Dragon was killed.

Four pairs of cardinals lived with us all winter, and were fed by my little daughter. One evening she mocked the bird that was flying about. He kept answering, and peeping around looking for his mate, almost human in his interest and search.

Anyone can have these friendly birds for neighbors. Two strong pulls are: first, feed them in winter when snows are deep, and second, with the joyous coming of spring, help them with nest-building. Children naturally love the birds, and if that love is fostered in the surroundings, no child will fling a stone or use a sling shot to try his skill on bird life.

J. D.

Even charming clothes depend upon the posture of the wearer for their effectiveness.

Asparagus-Rhubarb

ASPARAGUS and rhubarb are two of the earliest vegetables supplied by the spring garden. They are both excellent foods and are noted as body regulators. Rhubarb contains iron and calcium, according to Miss Ethel Jeffers, nutrition extension specialist of the Pennsylvania State College.

A rhubarb and orange pudding may be made by cutting one quart of rhubarb into inch pieces and four oranges into slices. Arrange these in layers using one-half cup of sugar, in a baking dish and bake in a moderate oven. This pudding may be served either hot or cold. Lemon, with rhubarb, makes a good combination for a pie or tart filling. When making rhubarb sauce, a little lemon juice may be added if desired.

Asparagus is an excellent source of vitamin B, which promotes growth, stimulates the appetite, aids the functioning of the digestive tract, increases resistance to bacterial infection, and prevents disease of the nerves. It is a good blood builder.

Asparagus as a Food

1. Makes an excellent cream soup.
2. Asparagus salad is made with tips placed in crisp lettuce leaves and held together with dressing of pimento or green pepper.
3. Serve with cream. Cut in pieces and cook a small amount of boiling salted water until tender. Drain off water. Add cream, heat, season and serve.
4. Serve with butter—May be tied in bundles, correct size for serving and cooked in boiling salted water until tender. Place each bundle on plate. Cut and remove string, and pour over softened butter.
5. Scalloped asparagus—Use cream or white sauce. Cover with buttered crumbs and bake.

Silence Is Golden

HAVE you ever tried the smooth little circles of metal that are called "domes of silence?" I much prefer them to casters on pieces of furniture. For many places the domes are far superior. They come in all sizes, some just right for the dining chair legs. You can't imagine how less awkward a chair is if equipped with dome of silence.

Each little fixture has four sharp prongs on the back that are driven into the wood like a nail. Once there and it stays, too. There is nothing about these useful domes to break, wear out, get out of order. They save strength and nerves of the home-keeper. They are much easier on rugs and carpets than casters or wooden chair legs.

Best of all they slide easily, never tear the carpets, and are very cheap. They cost but a few cents and for wooden furniture are ideal.

Mrs. E. M. Anderson

Baby Gifts

ISN'T it absurd to have a baby? I don't know that I could leave the vestment gray, that sorrows weave; I did not know that I could turn from pangs that scourge and griefs that burn; Until there came the month of May, And friendship brought a Hawthorne spray.

I did not know that I could greet Spring breezes, whispering and sweet; I did not know that to my ear The song of thrushes still rang clear, Until there came the balm of May, The hearts-ease of a Hawthorne spray.

Some tread the city's muddled maze, Some walk in lovely country ways, But may the King of Kindness send To each the blessing of a friend, The blessed tension of May, That whispers in a Hawthorne spray.

—L. Mitchell Thornton.

his little name-sake with a Liberty Bond. I know a farmer grandpa who likes to give a call to the new babe, and such gifts are indeed practical. Showers of little things are useful: baby soap, powder, safety pins, diaper garters, soft towels and wash cloths. These are never outgrown and may be as rich and dainty as your purse suggests.

Other appropriate gifts often not thought of: flashlight, hot water bag, thermos bottle, baby pan, bath apron, scales and the lovely baby blanket now so scientific and decorative.

C. A. T.



Hot Days and Sleeveless Frocks

No. 6553—Misses' dress. Cut in three sizes: 16, 18 and 20 years. An 18-year size requires 3½ yards of 38-inch material. To make capelet and bow of contrasting material requires 1 yard 39 inches wide. To make the scalloped edges with bias binding requires 6½ yards 2 inches wide. Price 15c or two for 25c.

No. 6826—Ladies' dress. Cut in five sizes: 36, 38, 40 and 42 inches bust measure. To make the ensemble for a 38-inch size requires 6½ yards of material 39 inches wide. Price 15c or two for 25c.

No. 6844—Ladies' dress. Cut in four sizes: 36, 38, 40 and 42 inches bust measure. To make the ensemble for a 38-inch size requires 6½ yards of material 39 inches wide. Price 15c or two for 25c.

No. 6845—Ladies' dress. Cut in four sizes: 36, 38, 40 and 42 inches bust measure. To make the ensemble for a 38-inch size requires 6½ yards of material 39 inches wide. Price 15c or two for 25c.

No. 6823—Ladies' dress. Cut in four sizes: 36, 38, 40 and 42 inches bust measure. To make the ensemble for a 38-inch size requires 6½ yards of material 39 inches wide. Price 15c or two for 25c.

No. 6829—Girls' dress. Cut in four sizes: 10, 12, 14 and 16 years. A 12-year size requires 2½ yards of 38-inch material. To make the ensemble for a 12-year size requires 4½ yards of 39-inch material. The width of the dress at the lower edge with fullness extended is 3 yards. Price 15c or two for 25c.

No. 6834—Girls' dress. Cut in four sizes: 10, 12, 14 and 16 years. A 12-year size requires 2½ yards of 38-inch material. To make the ensemble for a 12-year size requires 4½ yards of 39-inch material. The width of the dress at the lower edge with fullness extended is 3 yards. Price 15c or two for 25c.

HOW TO ORDER

Write your name and address clearly. State number and size of each pattern. Price 15c each, two for 25c. Send stamps or coin. Our Fashion Magazine will help in preparing your wardrobe. Copy only 10c. Address Pattern Department, Pennsylvania Farmer, 7301 Penn Ave., Pittsburgh, Pa.

TWO HELPERS INSTEAD OF ONE IN EVERY BAR That's why

FELS-NAPTHA GIVES EXTRA HELP WITH YOUR WASHING

Two HELPERS in a single bar—that's the extra help Fels-Naptha gives you.

Find it out for yourself. Unwrap a bar of Fels-Naptha and feel the velvety smoothness of the good golden soap. Then smell the clean odor that tells you it holds plenty of naphtha.

Naptha is a splendid dirt-loosener. And it's the combination of naphtha and soap working together, that makes Fels-Naptha give you extra help. Extra help that loosens even stubborn dirt and brings you fresh, sweet home-washed clothes—without hard rubbing.

In tub or machine. For soaking or boiling. In hot, lukewarm or even cool water, Fels-Naptha gives you this extra

help. Try it for household cleaning, too. Fels-Naptha loosens dirt so quickly that it gets your hands out of water sooner. Which, of course, helps keep them nice. Your grocer sells Fels-Naptha. Get some today.

FREE—a Fels-Naptha Chipper. Many women who chip Fels-Naptha into washing machine, tub or basin find it handier than a knife. Use it and Fels-Naptha to make fresh, golden soap chips (that contain plenty of naphtha) just as you need them. Send free and postpaid on request. Write today. Dept. 7-5-10 Fels & Company, Philadelphia, Pa.

THE GOLDEN BAR WITH THE CLEAN NAPTHA ODOR
FELS-NAPTHA



Kill Rats Without Poison

A New Extremist that Won't Kill Livestock, Poultry, Dogs, Cats, or even Baby Chicks. K-R-O can be used about the home, barn or poultry yard with absolute safety as it contains no deadly poison. K-R-O is made of Squill, as recommended by U. S. Dept. of Agriculture, under the Connable process which insures maximum strength. Two cans killed 378 rats at Arkansas State Farm. Hundreds of other testimonials. Sold on a Money-Back Guarantee. Insist upon K-R-O, the original Squill exterminator. All druggists, 75c. Large size (four times as much) \$2.00. Direct if dealer cannot supply you. K-R-O Co., Springfield, O.

K-R-O KILLS-RATS-ONLY



METAL ROOFING

CONSUMERS MFG. & SUPPLY CO. Dept. F. Moundsville, W. Va.

Cuticura Soap Shampoos

Cleanse the scalp and hair of dandruff and dust and assist in the healthy growth of hair. You will be delighted with their fragrance and efficiency. Send for Cuticura Soap and Shampoo with full directions. Address: "Cuticura," Dept. E, Malden, Mass.

WOOL—BLANKETS—BATTING—ROBES and colonial Coverlets. Made from your own wool. Also sold direct if you have no wool. Beautiful goods that give satisfaction and long wear. Write for catalog and samples. Prices reasonable. **WEST UNITY WOOLLEN MILLS**, 107 Lynn St., West Unity, Ohio

The trip to town

ON SATURDAY NIGHT the farm family drives to town. Boys and girls to the movies. . . Young fellows for a date. . . Dad and mother to purchase the weekly provisions.

But buying isn't such hard work as it used to be. It's a real pleasure trip, indeed. Goods come in packages and each sack or carton has a label. Mother knows what she wants. Father has his mind made up too. Under the farm account book at home they keep a "needed" slip. There all goods to be bought are listed. So are the brands to buy. Shoes, breakfast food, and syrup, gloves, tires, overalls.

If you're a practical farmer, you have learned that you can't spend valuable daylight hours gossiping at the crossroads store, or arguing with the grocer. You realize the advantages of reading advertisements, for you can trust advertised products and the stores that sell them.

The dealer who sells an advertised product does not have to resort to clever salesman's tricks. He sells his merchandise for what it's worth. He knows that you've had a chance to read about it, to compare it with other lines, to come to him with your eyes open.

Advertised goods have the public's approval. Accepted as standard, they remain on the market. Advertisers know that their products must be worth the money asked, or otherwise the public won't buy them.

GERMOZONE

The Life-Saver for Chicks

You cannot avoid the disease germs and bacteria that are picked up from the floor and droppings, you cannot avoid contamination from germ-laden little feet, you cannot avoid particles of spoiled or moldy food. But with a single teaspoonful of Germozone to the quart of drinking water three times a week, you can avoid the crop and bowel infection and diarrhoea that the germs and bacteria so surely bring on.

Each year increasing thousands of Germozone users save their chicks from this greatest danger. Leading hatcheries recommend Germozone, many public institutions and expert stations use it. **SAVE YOUR CHICKS.** A trial bottle, at our expense, will show you that your little ones can easily be avoided.

Give Germozone if your chicks already are sick. Use it for all sick birds.

At drug, feed and hardware dealers and chick hatcheries (one only at a time) postpaid, 12-oz. bottle, 75c. 4-oz. bottle, 25c. 1-oz. bottle, 10c. 51-pg. textbook on diseases, free.

GEORGE H. LEE CO., 1384 Lee Bldg., Omaha, Nebr.



Write to: Geo. H. Lee Co., 1384 Lee Bldg., Omaha, Nebr. Send big trial bottle Germozone. Enclosed find 10c to help cover postage.

Name _____ State _____ R. R. No. _____

REDUCED PRICES

May-June Delivery

"Kerlin - Quality"
S. C. W. Leghorn Chicks
300-Egg Blood Line

Write at once for Catalogue and Special Prices

KERLIN'S GRAND VIEW POULTRY FARM
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YOUNG'S

Portable Poultry Houses
SAVE MONEY—GET GOOD CONSTRUCTION

We can ship you a better poultry house than you can build, and the cost will be less than you would pay for the material alone. Prof. Harry H. Lewis, poultry author, in his series of our books on his farm at Haverhill, Mass., writes: "I have used Young's portable poultry houses for years. They are built of heavy lumber and are very strong. They are also very light and can be moved easily. They are also very cheap. I have found them to be the best for my needs." **FREE CATALOG** picture and description of our portable poultry houses, and complete line of seasonal poultry and pigeon houses, rabbit hutches, etc. **E. C. YOUNG CO.,** 95 Depot Street, Randolph, Mass.

One Drop

Bourbon Poultry Medicine
For each chick daily, in drink or feed stimulates appetite, aids digestion, regulates the bowels, improves health, lessens chance of disease infection. In the market 25 years. Small size one-half pint \$1.00. 4-oz. bottle, 50c. 1-oz. bottle, 25c. **Bourbon Remedy Co.,** Box 8, Lexington, Ky.

SUNNYSIDE CHICKS

Order direct from this ad, and obtain the better chicks from Heavy Laying Strains.
Rocks and Reds \$10.00 per 100
White and Barred Leghorns \$5.00 per 100
Heavy Mixed \$5.00 per 100
Light Mixed \$5.00 per 100
Progeny, too small and uncertain to guarantee.
Member International Baby Chick Association.
SUNNYSIDE HATCHERY, Box 1, Liverpool, Pa.

BROILER—RAISERS

SHIPPING CRATES LOANED FREE
SHIP YOUR LIVE BROILERS and other poultry to New York's Oldest Live Poultry House. Est. 1883. We are bonded commission merchants. Birds sold return made daily. Highest prices. Our outfit is unlimited. Inquire about us. Write for quotations, rates, tags, shipping instructions. **KRAKAU POULTRY CO., INC.,** West Washington Market, New York City.

Why Turkeys Die

Disease kills thousands of Turkeys. Vaccination and hygienic care will help prevent much of this loss, at a cost you can afford. Trial size \$1.00. 4-oz. bottle, 50c. 1-oz. bottle, 25c. **THE SYTAC CO.,** Division 113, St. Paul, Minn.

LOOK! PEKIN DUCKLINGS

Every Week, All Year, \$25.00 per 100. Extra fine quality. Live arrival guaranteed. Most profitable broilers known. Easy to raise—easy to sell. Weigh 4 lbs. in 8 weeks. **CATALAN FREE,** shipments appreciated.
NABOB POULTRY FARMS, Ave. R, Gambier, Ohio

Poultry Problems

Bronchial Disease

I have some chickens, one and two years old, that have been sick for about a week. They seem to have sore throats and are apparently blind in one eye. The throats are swollen and hard and the birds don't seem able to swallow any food. In the more severe cases the throats are filled with a yellow mucus which is very offensive. The bowels are loose and a yellow color.

M. C. Garrett.
Harrison county, W. Va.

It is quite possible that your fowls are affected with canker or at least some bronchial disease. It is well to remove the cankerous patches with a blunt stick and paint the sores with tincture of iodine. Give the fowls Epsom salts at the rate of one pound per hundred birds. This may be given in the drinking water or in a moist mash. Feed should be withheld for at least 12 hours before the Epsom salts are given.

It is well to use chloride of lime in the drinking water at the rate of two to three teaspoons per gallon in order to disinfect the water, since an infected bird will deposit germs in the drinking water and the disease will spread to healthy chickens.

A two per cent solution of mercurochrome may be applied directly to the affected areas if you prefer it instead of the iodine. This material may be purchased from the druggist. In the case of congested nostrils, it is suggested that mercurochrome be injected into each nostril with a medicine dropper.

The badly affected birds should be removed from the flock at once.
H. C. K.

Fertility

I would like to know how long I must wait to set eggs after I put the cockerels with my hens. How many should I have to 150 hens?
Mrs. Harry Reynolds.
Chester county, Pa.

In the case of a large flock of the light breeds and varieties of fowls such as the Leghorns, one male to 20 females should insure good fertility. Therefore, for 150 hens, approximately eight males would be required. In the case of the heavy breeds, one male to 15 females is recommended.

After the cockerels have been mated with the hens for a week or ten days, the eggs may then be used for hatching purposes.
H. C. K.

Salts for Chicks

Please tell me if you recommend salts for baby chicks. I have a neighbor who does and is losing some chicks.
Mrs. J. M. Brown.
Clinton county, Pa.

We do not recommend that Epsom salts be given to baby chicks. Nor do we think it is necessary to place anything in the drinking water as an aid in keeping chicks in good condition.

We have never been able to find any preparation which would cure the pullorum disease if it should be present in a flock of chicks. It is a better plan to purchase disease-free chicks. Less mortality and less worries will result.
H. C. K.

Buy Tested Stock

Would you please tell me what causes bacillary white diarrhea? Is there any cure and what would you use to disinfect a brooder house before you put a new lot of chicks in? I have lost nearly my whole flock of chicks with this disease.
G. H. Bernhard.
Montgomery county, Pa.

The pullorum disease causes a heavy mortality in young chicks. It has been our experience, and the experience of poultrymen throughout the country, that it pays to buy chicks from a breeder who has had his stock tested and the percentage of reactors has been found to be extremely low.

Many times one purchases chicks from a flock which has been tested and yet obtains poor results. The reason for this is because the original

infection was too great. It pays to buy chicks from a breeder who furnishes them from stock which has been found free or practically free from this pullorum disease.

The best method of treatment would be for you to clean the brooder thoroughly, wash and scrub the floor with hot water and lye and then apply a five per cent solution of a good disinfectant. This should put the houses in a reasonably sanitary condition.
H. C. K.

Experience with Gapes

Having noticed a request for remedy for gapes in the Pennsylvania Farmer recently, I would like to give our experience.

Plowing the soil and moving brooder houses may be a long time cure, but the permanent, but if the inquirer is most of us he wants immediate relief.

We had a flock of between three and four hundred stricken and since the only remedy I had heard of was the removal of gape worm with a horse dipped in turpentine, matters were surely looking serious. I happened to have an experience of a lady who had her chickens in a box, shook a like dose of air-slaked lime over them and then closed the box for a few minutes. We started at once, putting about 25 or 30 chicks in a box and using a very loose piece of cloth for a cover or shaker. Every chick was treated and about twelve needed the second dose. Not one died.

With my second brood, when I saw the gapes appearing, I went to the house one night while chicks were roosting and shook about four quarts of lime through the house and over the brood and closed it quick. It worked quite as well and was much less trouble. Not a chick died.

We have never had trouble of the kind since we moved from that place so haven't experimented any more. **Mrs. Clyde M. Grubbs.**
Lancaster county, Pa.

I saw in your paper of April 10 where B. H. B. wants something to cure gapes. This is what I used for my chickens and found it very good: One can use spirits of camphor, one can use camphor in their drink and put some hot water on it. I stand for a few minutes then fill with cold water. Put this where the chicks have to drink it and no other water. One can use spirits of camphor, I like the gum best. **Mrs. W. R. Swann.**
Clearfield county, Pa.

We had begun to think that gapes were not a problem on our chicken farm today, but apparently good many folks have found different cures for these parasites. Realizing I may be interested in what Swoope has to say regarding the cure of camphor as a cure for gapes, I have been one of the standbys for treating fowls with camphor. It can be used with results at a reasonable cost. To the chicks. Of course, the principal idea is that the lime causes irritation which ultimately causes the chick to cough and expell the worms.

According to A. L. T. Craven, county, Pa., the following remedy is good for gapes:

"Give a pill of camphor gum the size of a small pea. The camphor acts upon the worms by vaporizing them."

We have never tried this remedy.
H. C. K.

Heavy Feeding

I have lost several of my Leghorn hens by the vents turning out. It is mostly the pullets. They are in good flesh and are laying very well. I am feeding a good scratch grain and a couple of times a week adding a little salt with mash and about three pounds of mineral regulator and tonic in the mash. I have been feeding this for some time. These hens have been confined to the house since last November.
J. F. C. W. Clark.
Clarion county, Pa.

The trouble you describe is a common one, prolapse of the oviduct. There is good evidence of too heavy feeding of grain, especially corn, causes extreme fatness and by muscles, resulting in eversion of the oviduct during laying. This is as liable to occur in hens which

May 10, 1930

laying much or have started to lay at this time after loafing during the winter as in heavy layers, and perhaps more so.

To remedy the cause, cut down the grain, especially corn; give a dose of one pound of Epsom salts dissolved in the drinking water per 100 birds, and feed enough green feed to keep the birds in a laxative condition.

During the day will also help. The best thing to do with a layer with prolapsus is to kill her for food. Such birds should be re-housed from the flock at once, or the others will pick at the tissues and form the destructive habit of picking at sound birds.
R. L. S.

Unprofitable Layers

I started the winter with 100 pullets, 50 White Leghorns that were commercial chicks, and 50 hatched from a flock of White Rocks. They were in the appearing flock, but have proved very unprofitable as layers. They are healthy, have not had a sick bird in the flock.

Yesterday I dressed several for customers and examined the intestines. I found they are infested with both tape and round worms. Is there any help for them and if so what can be done? My poultry houses are stationary. We keep them as clean as possible, are not troubled with lice.

Mrs. G. M. Russell.
Lancaster county, Pa.

Having used a gizzard capsule for worming birds, which is a cheap individual treatment, but possibly not effective for tapeworms, and also like to cause a drop in production. The treatment seems to be the iodine

in the drinking water. Iodine is a disinfectant and especially dangerous to worms in flocks are ruinous to eggs and especially dangerous to young chicks. You must raise your young chicks in confinement or far from your poultry buildings and keep them away from the old birds you want to avoid trouble with.

Write to Pennsylvania State College, State College, Pa., for information on confinement brooding.
R. L. S.

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Bone Development

I am having trouble with my little chicks. They will be all right and begin to chirp and droop. Look at them have lice or mites, but don't. The little wings will droop and legs will come out. They die in a few minutes.
Mrs. L. M. Boyd.
Frost county, Pa.

It is impossible to state the cause of the mortality in your chicks. Sometimes certain infectious diseases cause heavy mortality when chicks are young. Other times lack of proper development causes the chicks to be weak in the legs and die. To the care of proper bone development, the chicks need access to the direct rays of the sun or if this is impossible, use of cod-liver oil in the mash the amount of one pint to a hundred pounds is most desirable.

During the past few weeks there has been so little sunshine that it has been necessary for the poultryman to feed cod-liver oil in order that their chicks may develop properly.

It would suggest that you send some chicks to the Bureau of Animal Industry, Harrisburg, Pennsylvania, for diagnosis. This will be the best method of ascertaining the cause of mortality.
H. C. K.

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Depluming Mites

What can I do for my chickens that have their feathers around head and neck? It does not look like molt. Is it the depluming mite? Do they stay on the chickens or so on the roost? **Helen Rhenius.**
Clarion county, Pa.

Four birds may be affected with depluming mites, which stay on them the time. An effective remedy is a part sulphur and five parts lard. Rub into the parts where the feathers are coming out.
R. L. S.

Turning spring-hatched pullets into profitable, early-fall layers



These pullets received Dr. Hess Poultry Pan-a-min from the day they were old enough to eat

TWO PENS of 98 pullets each. Both pens from the same brood of chicks. Both pens fed and handled alike. Yet one pen laid 539 more eggs in their first 5 months than the other . . . 539 fall and winter eggs that brought \$22.44. How would you explain this difference in production and profit between pullets of exactly the same breeding . . . pullets fed and cared for exactly alike?

Here is the answer. One pen received Dr. Hess Poultry Pan-a-min in addition to feed and care . . . received the minerals of Pan-a-min from the day they were old enough to eat . . . received the conditioning properties of Pan-a-min while they were growing and developing . . . received the balancing goodness of Pan-a-min right along with their laying ration. These two pens were divided for this experiment when they were day-old chicks and the pullets picked for the test

in the fall. Division made by experts, evenly as possible.

This is a typical example of several tests conducted with pullets in the last three years at the Research Farm of Dr. Hess & Clark, Inc. The combined results from all these tests show that you can profitably add one thing to the best of feed and care for pullets . . . Dr. Hess Poultry Pan-a-min.

Start your broods on Pan-a-min now. You'll be glad you did when the pullets start laying with the early fall. You'll be glad you did when your pullets have laid consistently for you all through their first winter . . . laid high-profit eggs and plenty of them. Dr. Hess Poultry Pan-a-min does not take the place of feed; but, as this experiment proves, no feed can take the place of Pan-a-min. Order from your dealer today. Dr. Hess & Clark, Inc., Ashland, Ohio.

Dr. Hess Poultry

PAN-A-MIN

A Conditioner and Mineral Supplement

Seeds of Ideas

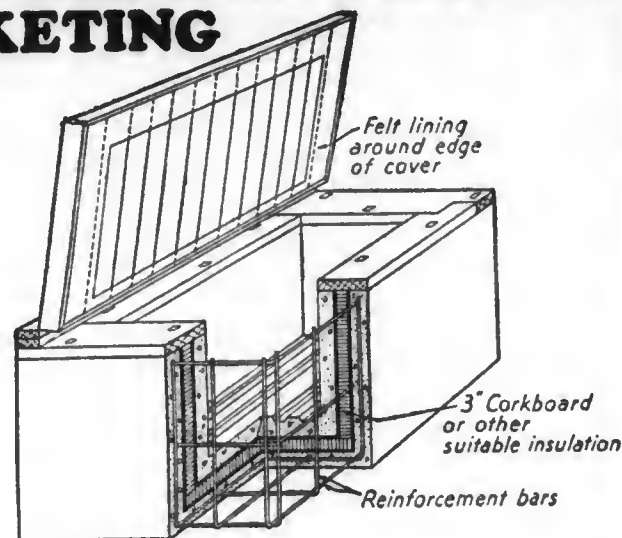
ADVERTISEMENTS are selected seeds of ideas planted in the soil of your mind. If cultivated thoughtfully, these ideas will produce greater comforts and better methods of accomplishing your aims. These selected seeds of advertising can help you to live more fully at less cost.

The advertisements in this publication are a record of what the manufacturers are doing for you. They will give you many new ideas and will tell you what you want to buy. And they will help you get the most for your money.

The advertisements are news. They are interesting. Form the habit of reading them carefully and regularly. It will pay you to keep informed of the daily progress of business.

For full value—buy standard products. Manufacturers stand back of advertised goods.

FROM MILKING TIME TO MARKETING TIME



An insulated concrete tank is permanent, easily cleaned, always sanitary and moderate in cost.

- 1—It will conserve temperatures.
- 2—It will save ice.
- 3—Mechanical refrigeration can be installed in this tank.

Free Construction Plans

Blueprints and instructions for building an insulated concrete milk cooling tank sent free—use this coupon.

Portland Cement Association
1315 Walnut St.
PHILADELPHIA

Please send me your free booklet on "Milk Cooling Houses of Concrete."

Name.....

St. Address (or R. F. D.).....

City.....

State.....

FARMS FOR SALE

In the mild and invigorating climate of North Carolina I have several excellent farm units in the famous winter section "Pinehurst", which are available at attractive prices and on excellent terms. Also farms in other parts of North Carolina where "summer spends the winter."

Full information gladly furnished on request.

J. L. COCKERHAM, Attorney
Box 1579, RALEIGH, N. C.

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A Powerful Gas Tractor for Small Farms, Gardeners, Florists, Nurseries, Fruit Growers & Poultrymen

DOES A MEN'S WORK

Handles Field and Truck Crop Tilling, Runs Belt Machine, Washing or Slicing Equip., 5 H.P. Engine

Gives ample power for thorough work. Rugged and Reliable.

CATALOG FREE

Write Today for Illustrated Catalog and Full Information.

STANDARD ENGINE CO.

Memphis, Tenn. Philadelphia, Pa. New York, N.Y.
3171 Come Ave. 2425 Chestnut St. 184 Cedar St.

for Swollen Tendons

ABSORBINE will reduce inflamed, strained, swollen tendons, or muscles. Stops the lameness and pain from a splint or soft curb. No blister, no hair gone, and horse can be used. \$2.50 at druggists, or postpaid. Describe your case for special instructions. Interesting horsebook 24¢ free.

From a race horse owner: "Used Absorbine on a yearling pacer with strained tendons. Calk all over lameness, though for a time couldn't take a step. Great stuff."

ABSORBINE

TRADE MARK REG. U.S. PAT. OFF.

W. F. YOUNG, Inc. 354 Lyman St. Springfield, Mass.

SAY you saw the advertisement in Pennsylvania Farmer when you are writing to our advertisers

Better Corners Prolong Fence Life

By R. U. BLASINGAME

ONE of the most common sights to be seen in a drive along any road or highway is a good fence going to rack and ruin because the corners have not been properly installed or have been made with cheap and short-lived material. Frequently can be seen fences made with steel posts, capable of lasting thirty years or more, and the corners made with wood posts or steel corners improperly set.

One reason for weak corners has been the fact that many fence builders were unwilling to take the time and energy to set the corner and brace posts in concrete, or have been unaware that the corner is the most important part of the fence. A fence will not remain stretched tight if the corners are weak, or if they have been hurriedly installed and are consequently heaved by frost every winter. A fence which is not kept stretched tight will thus have its useful life greatly shortened.

There are two satisfactory methods of making good corners with steel fence posts. One is to set the corners and brace posts in concrete; the other is to use dirt-set corner assemblies which have recently been developed to provide great strength cheaply and without the extra work and expense of concrete. These assemblies provide wide expanding anchor plates on the bottom of the corner post and broad



Drive the brace plate into solid ground.

The brace plate is now fastened to the end of the brace rod and driven into the solid ground. Do not dig a hole for the plate, as firmer bearing can be secured against undisturbed soil. Remove the soil under the brace just wide enough for the brace and continue driving until the top of the plate is two or three inches below the surface of the ground. Cover the brace plate and the post is ready for stretching fence.

High Efficiency Hydraulic Rams

SOMETIME ago we prepared a short article pertaining to hydraulic rams. One hydraulic ram manufacturer writes us the following:

"Our rule for figuring length of drive pipe is to divide the elevation to which the water is pumped by the ram and multiply this result by 6, but in no case is it necessary to go over 30 feet and we never go under 30 feet. All of our rams up to and including the No. 30 are hot galvanized inside and out and there is no corrosion of the inside or outside, which adds to efficiency."

"The highest proportion of water we can deliver is 45 per cent of the water used. This is where the lift is a little over twice the fall. We have ten per cent for friction of the water. A ram will not operate unless the lift is double the fall. Ram has higher efficiency when it pumps 10 or ten times the fall than when it pumps only twice the fall."

We know that this company makes a high-grade product and do not hesitate to publish their statement regarding the efficiency of their equipment.

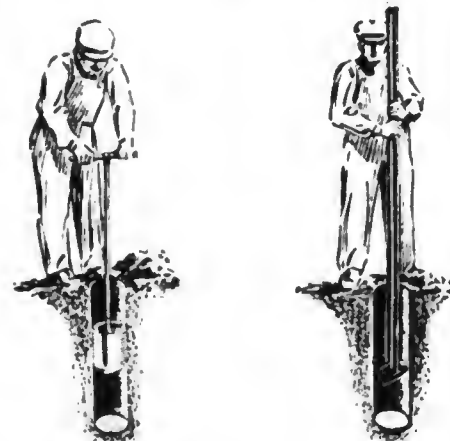
Custom Work

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"Tractor owners who do not have enough private duties for their machines to keep them busy may be well repaid if they remember that efficiency is usually in demand."

"Earnings of Murray Wilson, with a three-plow tractor purchased in August, 1924, show the possibilities of income from custom work. In five years Mr. Wilson earned a total of \$16,738, an average of approximately \$3,347 a year. During this time his expenses for repairs on the tractor were less than \$50."

"Jobs on which the outfit was used included hay baling, wood sawing, threshing, plowing, disking, dragging, stump pulling and operating a saw mill."

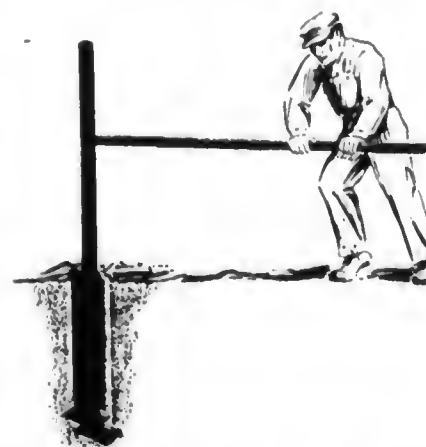


The hole is dug 37 inches deep.

push plates which are a part of the brace posts and which are driven into undisturbed firm earth. Such a corner assembly is installed easily and quickly because there is only one post hole of ordinary size to dig. The accompanying illustrations show how a dirt-set corner assembly is installed.

A round hole nine inches in diameter or a square hole eight inches across is dug to allow the post to be set with brace plates folded together, as shown in first sketch. Next brace is attached to post, flat side of angle on top. With the brace as lever the post is turned to open the brace plates at bottom of post.

The next operation is to lean the top of the post backwards two inches, then fill and tamp the hole. The post will pull back to vertical position when fence is stretched. The brace rod should be pushed in the soil temporarily to hold the post backwards while it is being tamped solid.



Turn post clock-wise to open the expanding anchor plates.

PATHFINDER

a TIRE that commands respect on any car -

ENTIRELY apart from the fact that Pathfinder's other name is Goodyear, anyone can see that it is a remarkable tire.

It's big and husky—thick of tread and fat of side. You can feel the strength and toughness in its resilient black rubber—and you can prove that toughness by your speedometer on city boulevard or country road.

In addition to its obvious ruggedness, it has the extra life of that famous cord material, Supertwist, built into its carcass.

If you tried to guess the price of a Pathfinder, chances are you'd name a figure far above that which Goodyear dealers are asking. In fact, there are few tires of any kind which are sold at prices so low.



A Quality Tire Within the Reach of All



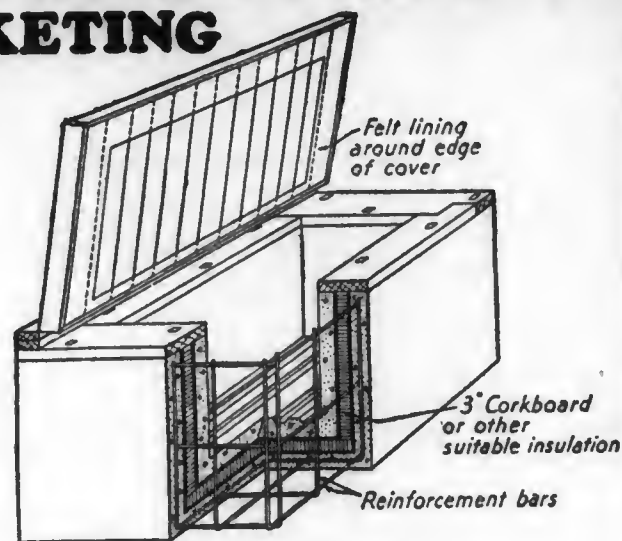
GOOD YEAR



THE GREATEST NAME IN RUBBER

Copyright 1939 by The Goodyear Tire & Rubber Co., Inc.

FROM MILKING TIME TO MARKETING TIME



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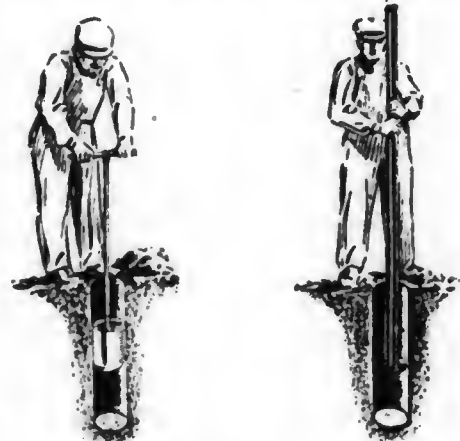
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GOOD YEAR

THE GREATEST NAME IN RUBBER

Copyright 1930, by The Goodyear Tire & Rubber Co., Inc.

A FAMOUS NAME  A FINER CAR

Enjoy all these improvements
while you profit by Pontiac economy



NEW SERIES
PONTIAC BIG SIX

Illustrated above: The 2-Door Sedan • Body by Fisher

Farmers who drive the New Series Pontiac Big Six can look forward to years of dependable performance. For Pontiac's 60-horsepower engine—the largest in any low-priced six—has big, durable main bearings. The crankshaft is fully counterweighted and equipped with the Harmonic Balancer which counteracts torsional vibration. Full pressure lubrication provides correct, positive oiling. Because of Pontiac's moderate engine speed there is, at all times, less wear on moving parts. And many vital improvements now assure Pontiac owners an even greater degree of driving satisfaction than they have enjoyed in the past.

New rubber engine supports which insulate the power plant from the frame make Pontiac's engine much smoother. Its big, weather-proof, non-squeak four-wheel brakes have been made still more positive and reliable. A smart new sloping windshield, affording maximum vision, also deflects headlight glare. A new roller bearing steering mechanism gives increased ease

of control. Improved Lovejoy Hydraulic Shock Absorbers at no extra cost, and more flexible front springs, provide the car riding ease.

And while you enjoy these and many other improvements, you will also profit by Pontiac's traditional economy. For the New Series Pontiac Big Six is just as inexpensive to maintain as earlier Pontiacs. It gives the same remarkably high mileage from gasoline. Oil consumption is low. Repair bills are few. And because of its long life, Pontiac's resale value is always unusually high.

The New Series Pontiac Big Six is on display at the showrooms of your Oakland-Pontiac dealer. Stop in and let him tell you more about this exceptional automobile. See its bodies by Fisher. Notice its new Duco colors. Careful investigation and a trial ride will reveal the many advantages of Pontiac ownership. . . . Available in seven body types. All prices f.o.b. Pontiac, Mich., plus delivery charges. . . . Oakland Motor Car Company

Write for an interesting booklet which illustrates and describes the design of the New Series Pontiac Big Six with its important improvements.

\$745

PRODUCT OF GENERAL MOTORS

Remember . . . you can buy a Pontiac on special G. M. A. C. terms offered to farm buyers exclusively with payments at convenient intervals during the year.

AND UP, F. O. B. PONTIAC, MICHIGAN

One less chore to do on the farm

FOR big game, small game, pests that steal your grain and poultry—for all kinds of shooting—the right cartridges are Kleanbore. They're more accurate, and they do one of your disagreeable chores for you.

Kleanbore cartridges prevent rust, corrosion, pitting and leading. They keep the rifle accurate, and relieve you of that tiresome churning with the cleaning rod.

More Kleanbore .22's are sold than all other makes combined, and they're only four years old. That tells the story of their superiority. And they're just as good in all sizes for rifles and revolvers, rim fire and center fire.

Give your rifle one last thorough cleaning. Then shoot nothing but Kleanbore cartridges in it, and it'll stay as accurate as it is today, whether you clean it or not.

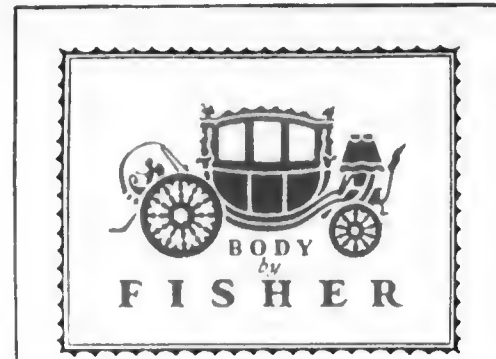
Your dealer sells Kleanbore. Insist on getting it.

REMINGTON ARMS COMPANY, Inc.
Originators of Kleanbore Ammunition
25 Broadway New York City



Remington
KLEANBORE REMINGTON-UNION
TRADE MARK

LOOK TO THE BODY!



SAFETY COMFORT • BEAUTY emphasized in every Body by Fisher . . .

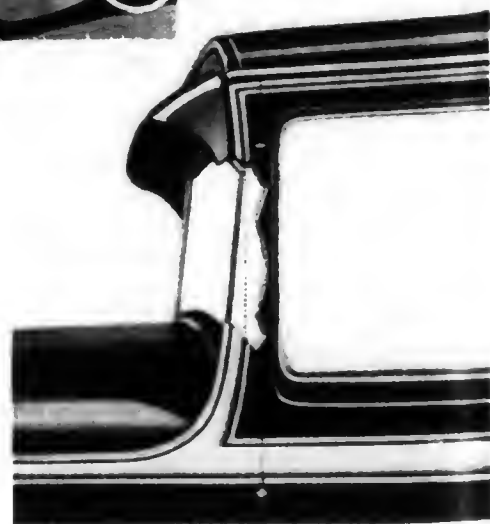


Left—More and more men and women are directing their attention to the motor car body. When this is done, the rich materials and careful craftsmanship make Fisher Body cars stand out as far superior by contrast.



Left—Fisher provides for the absolute comfort of the driver by the adjustable driver's seat, which can be moved easily forward or back through a range of 3 inches by turning a conveniently located regulator handle.

Below—The dotted line shown indicates the position of the conventional curved windshield. The double line shows the positioning of the new Fisher Non-glare Vision and Ventilating Windshield, which is substantially flat and reduces windshield glare to a minimum.



In every Fisher Body car, safety, comfort and beauty are developed to an exceptional degree

Safety—Fisher Body cars are safe. Among the many important attributes of safety found in Body by Fisher are the following: Wood-and-steel construction—the type of construction used in bodies for the most expensive cars; Fisher's scientific method of bracing the body at every point subject to stress and strain; the flat and low construction of the roof—this being the strongest type of roof construction; and the Fisher non-glare vision and ventilating windshield. This windshield provides clear and undistorted vision through a single pane of genuine plate glass. At the same time, it reduces the annoying reflection of windshield glare. In addition, it affords complete and thorough ventilation of the car. The windshield may be adjusted as desired by turning the regulator handle, even while the car is in motion.

Comfort—Comfort and roominess in a Fisher Body car are fully evident. An adjustable front seat, which can be moved easily forward or backward by turning a conveniently located regulator handle, enables the driver to assume the most comfortable and efficient driving position. The form-fitting cushions are resilient and comfortable, and are inclined at the right angle to afford greatest riding ease. Fine

coiled springs and thick soft padding assure resiliency coupled with strength and durability.

Beauty—Fisher Body cars are designed by the world's foremost body designers. They excel in harmony of line and color. That is why every Fisher Body car, no matter what its price, enjoys favorable comment even when compared with the costliest cars. Furthermore, Fisher Bodies are found on General Motors cars and only those cars, assuring the motor car buyer not only greater safety, comfort, beauty and body value, but far greater motor car value as well.

CADILLAC • LINCOLN • BUICK • VIKING • OAKLAND • MARQUETTE
OLDSMOBILE • PONTIAC • CHEVROLET
GENERAL MOTORS

May 10, 1930

PENNSYLVANIA FARMER

(681) 19

The Story of Woodbine Farm

By W. D. ZINN

(Continued from last week.)

CHAPTER XIII

Up to this time nothing has been said about the children in the home. On the first day of June, 1889, a son was born. We named him Dorrance Dana. On August 5, 1893, a daughter arrived who was named Gay. Dorrance from childhood was fond of books. Gay was well named. She did not dislike books, but she was more fond of play than her brother. He looked on the serious side of life, while Gay enjoyed a good time. Both these characteristics are commendable in children.

In a former chapter I had something to say about my limited opportunity for securing an education in the country schools. After thirty years, when my children entered school we had as yet but a four months' term, a one-room school house, and very poor facilities for educating our children. On account of these things as well as because of the belief that many children are put into school at too early an age, our children were not started to school until after they were past seven years of age.

College Training

Dorrance completed the work in the grades at the age of thirteen, entered high school at Philippi, and a few years later began his college work at what is now Broadus College. Graduating from there, he then took a four-year course at Bucknell University in Pennsylvania, from which school he received his degree. At this writing he is Principal of one of the ward schools in Sioux City, Iowa. He married Erma Marsh, who had been a teacher in the Philippi schools for four years. They have two children, Susan and William D.

Gay followed her brother through the grades, graduated from Broadus College, and went to the Ohio State University, from which she received a degree in Home Economics in 1917. Subsequently she accepted a position in the Extension Department of the West Virginia University, where she remained about eighteen months. Her husband, Robert B. Dustman, is also a graduate of the Ohio State University. Recently he was awarded the Ph. D. degree from the University of Chicago after which he became Chief in Agricultural Chemistry at the University of West Virginia. Previous to this time he had served for a number of years as Extension Specialist in Crops and Soils at the Ohio State University. They have two children, Robert B., Jr., and Mary Jean.

I have discharged the duty that I believe every father owes to his children, that is, I have provided them with a fairly good education. This has given them something that no one can take from them. A great many people have the idea that the world owes them a living whether they make any effort to earn it or not. We tried to teach our children that the world owed them nothing, but that they owed the world the purest and most noble and active lives they could give to it. Because of their superior advantages over their parents, the world will demand, and have a right to expect of them, more useful lives than their parents have been able to lead.

Livestock Shipping

I was so eager to make money and get out of debt that I engaged in many things in which I thought I could earn a few dollars. These efforts did not always bring success. The shipping of livestock was one business that, had I left alone, I would have had more money to spend on other things. I was in the business from 1890 to 1900 and shipped thou-

sands of sheep and cattle. All these years I had a partner in the person of I. C. Woodford. In justice to Mr. Woodford I would say that our failure to make money at this business was no more due to him than to me. He did his part well and I tried to do mine well. But in the nineties no one went ahead very rapidly financially. It is hard to buy so as to make a profit on a declining market and that was the kind we had most of the time.

I recall a carload of cattle which we bought of Mr. T. They were good butcher cattle that averaged about 1,200 pounds. We bought them for two and one-half cents per pound or \$30 a head. Mr. T. had asked me three cents for the cattle but finally agreed to sell them at two and one-half cents. We shipped the cattle, my partner going to the market with them. On his return we figured up what we had made and after paying all expenses we found that we had a profit of 86 cents on the load of cattle. They were sold in Philadelphia for three and one-fourth cents per pound. Mr. T. claimed after he had sold us the cattle that we had mesmerized him into giving us the cattle. I do not know what would have happened had he been able to mesmerize us. He never felt kindly toward us from that date forward.

Deals in Lambs

On one occasion I went to Baltimore with three loads of cattle and a single deck of lambs (135 head). The cattle market was good that week and I sold the three loads, making us \$300. The lambs were consigned to a commission man who sold them for me. When I had paid the freight and the commission I had \$70 left for the 135 lambs.

On another occasion I had bought a lot of lambs of Mr. J. at five cents per pound. We had balanced the scales and driven in a draft of lambs when there came one of the hardest downpours of rain I had ever witnessed. After the rain was over we went back to the scales. The platform was covered with water and the lambs were soaked to the skin. I suggested that the lambs be driven off while the scales were rebalanced. Mr. J. objected strenuously, weighed both lambs and water and went to the house after notifying me that he would accept settlement on no other basis.

One winter I went to Toronto, Canada, in search of stock cattle. We found none on the market that suited us. Finally we drove out into the country 60 miles with a Canadian shipper, and spent Sunday in his home. On Monday morning the thermometer was 40 degrees below zero, but we drove all day in a sleigh and by night had bought two carloads of cattle.

Sometimes we bought only one animal in a place and, although the shipping point was eight miles from them, these Canadians drove their cattle all lots of one, two, three and four all of that distance and helped us load them. I doubt whether a place could be found in the United States where the farmers would be willing to do so much.

Most Shippers Fail

Shipping livestock is a fascinating business. Very few men ever quit after they commence until they break up and most of them do fail. In the fall of 1900 we had quit shipping for the season when a friend called me up from a neighboring county saying he had a load of good cattle he wanted to sell. After he had described

(Continued on page 28.)

Uses Pyrox Instead of Home-Made Bordeaux — Gets Increased Yield

IN every potato-growing section, instead of home-made bordeaux are getting bigger yields, finer quality potatoes, and more profits. The extra yield obtained with Pyrox more than pays for the cost of spraying and leaves extra cash besides. Mr. A. J. Meyer of Annville, Pa., writes:



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"Last spring I decided to make a comparison of Pyrox and home-made bordeaux sprays so I put on one-acre tests for each material.

"At digging time in September accurate measurements of the land and weights of the potatoes were made. The potatoes sprayed with Pyrox yielded 287 bushels per acre, and where the home-made bordeaux was used 241 bushels per acre. This was a gain of 46 bushels to the acre for Pyrox, a substantial increase. This gain pays the spray material bill and leaves a profit.

"All conditions for the two plots were the same in every respect and I believe that the Pyrox spray is responsible for the increased yield."—A. J. MEYER.

If you have not used Pyrox try it this year. Pyrox is a combined insecticide and fungicide that kills insects, prevents blight, and other plant diseases, and stimulates plant growth.

Quick and easy to use. It does not clog the nozzles and sprays in a fine mist. It has excellent sticking and covering properties.

Spraying with Pyrox not only results in the extra yields normally expected from spraying—the user can anticipate a still higher yield which will pay for the difference in the cost of the Pyrox many times over.

Pyrox is obtainable in all sizes from 1 pound jars to 300 lb. barrels, and is offered at the lowest price since 1899. See your dealer today and obtain from him a copy of the new illustrated Pyrox Spray Guide.

BOWKER CHEMICAL COMPANY
419 Fourth Avenue, New York, N. Y.

THE NEW IMPROVED
Pyrox
REG. U. S. PAT. OFF.



203 Carloads of GATOR-HIDE shipped in less than four months

... and yet they said the American Farmer would never plant this new way.

OF COURSE, practically all well informed agriculturists knew three or four years ago how the pineapple growers of Hawaii were using paper mulch. But they said the American Farmer was too strongly wedded to traditional farming methods to revolutionize his ideas. And yet, we've shipped 203 carloads of Gator-Hide Mulch Paper in less than 4 months! And a car holds a lot of paper.

Large Scale Paper Mulching This Year
The answer is that the farmer has found out for himself just what Gator-Hide does. We didn't have to tell him that increased ground temperature, conserved soil moisture, and the elimination of weeds were beneficial to plant growth. He knew all that. All he wanted to know was whether or not Gator-Hide actually DID these things. And by experiments with just a few

rolls he found out. Now he's going ahead on a big scale.

The World's First Mulch Paper Planting Manual Free

The Gator-Hide Mulch Paper Planting Manual is just off the press. It contains helpful information on correct methods of laying, anchoring and planting. Send coupon for this booklet now—it's free.

If your dealer is not yet stocking Gator-Hide, write us direct, mentioning his name. \$3.50 to \$7.00 a roll—slightly more in Canada.

INTERNATIONAL PAPER CO.
Mulch Paper Division, Dept. X7
220 East 42nd St., New York, N. Y.



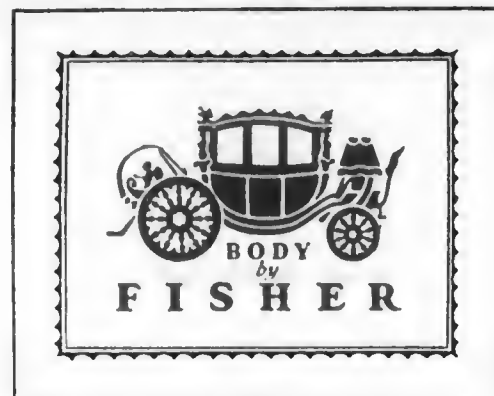
At left: Reversed Doctor Hamby of Hoboken, N. J., and his tomato plants, growing through Gator-Hide Mulch Paper. "Many of the tomatoes," reports Dr. Hamby, "weighed from 2 to 2 1/2 pounds." Above: Warming's Farm, near Buffalo, N. Y. Cabbage transplants in double rows through Type A, 24 inch Gator-Hide Mulch Paper.

GATOR-HIDE Mulch Paper
This paper is licensed for use in the 37 states east of Colorado and in Canada east of Saskatchewan under the patents of Charles F. Eckart, the inventor of mulch paper, which are owned by the International Paper Co.

Please send your booklet, "The Struggle of Mulch Paper and the Gator-Hide Mulch Paper Planting Manual," and tell me where I can secure a supply of Gator-Hide Mulch Paper in this territory.

My dealer is.....
My name.....
My address.....

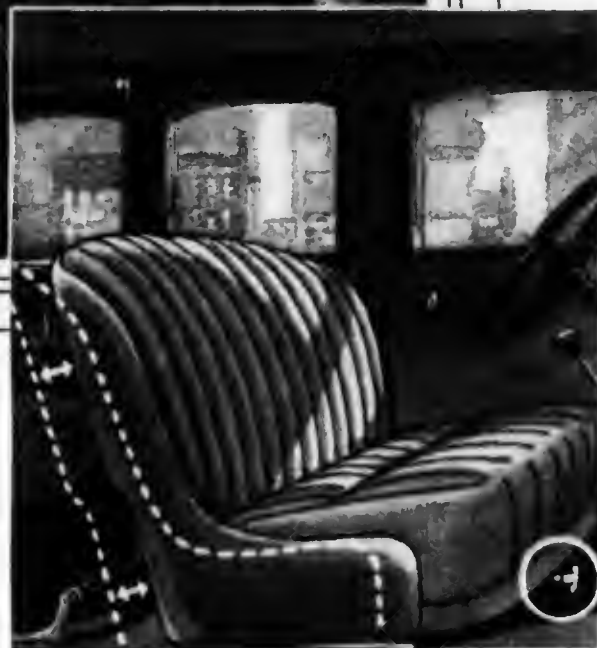
LOOK TO THE BODY!



SAFETY COMFORT • BEAUTY emphasized in every Body by Fisher . . .

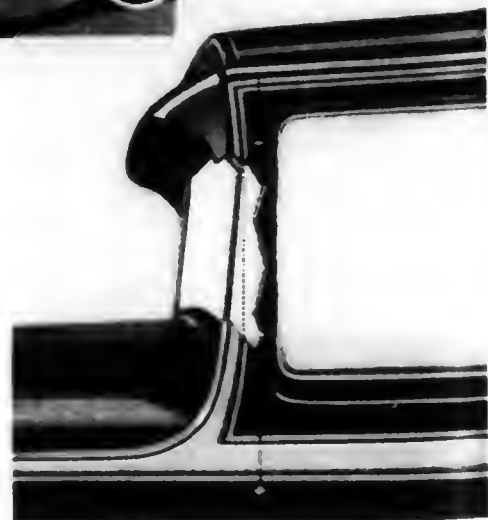


Left—More and more men and women are directing their attention to the motor car body. When this is done, the rich materials and careful craftsmanship make Fisher Body cars stand out as far superior by contrast.



Left—Fisher provides for the absolute comfort of the driver by the adjustable driver's seat, which can be moved easily forward or back through a range of 3 inches by turning a conveniently located regulator handle.

Below—The dotted line shown indicates the position of the conventional vertical windshield. The double line shows the position of the new Fisher Non-glare Vision and Ventilating Windshield, which is set at an angle of 7° and reduces windshield glare to a minimum.



In every Fisher Body car, safety, comfort and beauty are developed to an exceptional degree

Safety—Fisher Body cars are safe. Among the many important attributes of safety found in Body by Fisher are the following: Wood-and-steel construction—the type of construction used in bodies for the most expensive cars; Fisher's scientific method of bracing the body at every point subject to stress and strain; the slat and bow construction of the roof—this being the strongest type of roof construction; and the Fisher non-glare vision and ventilating windshield. This windshield provides clear and undistorted vision through a single pane of genuine plate glass. At the same time, it reduces the annoying reflection of windshield glare. In addition, it affords complete and thorough ventilation of the car. The windshield may be adjusted as desired by turning the regulator handle, even while the car is in motion.

Comfort—Comfort and roominess in a Fisher Body car are fully evident. An adjustable front seat, which can be moved easily forward or backward by turning a conveniently located regulator handle, enables the driver to assume the most comfortable and efficient driving position. The form-fitting cushions are resilient and comfortable, and are inclined at the right angle to afford greatest riding ease. Fine

coiled springs and thick soft padding assure resiliency coupled with strength and durability.

Beauty—Fisher Body cars are designed by the world's foremost body designers. They excel in harmony of line and color. That is why every Fisher Body car, no matter what its price, enjoys favorable comment even when compared with the costliest cars.

Furthermore, Fisher Bodies are found on General Motors cars and only those cars, assuring the motor car buyer not only greater safety, comfort, beauty and body value, but far greater motor car value as well.

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GENERAL MOTORS

May 10, 1930

PENNSYLVANIA FARMER

(681) 19

The Story of Woodbine Farm

By W. D. ZINN

(Continued from last week.)

CHAPTER XIII

Up to this time nothing has been said about the children in the home. On the first day of June, 1889, a son was born. We named him Dorrance Dana. On August 5, 1893, a daughter arrived who was named Gay. Dorrance from childhood was fond of books. Gay was well named. She did not dislike books, but she was more fond of play than her brother. He looked on the serious side of life, while Gay enjoyed a good time. Both these characteristics are commendable in children.

In a former chapter I had something to say about my limited opportunity for securing an education in the country schools. After thirty years, when my children entered school, we had as yet but a four months' term, a one-room school house, and very poor facilities for educating our children. On account of these things as well as because of the belief that many children are put into school at too early an age, our children were not started to school until after they were past seven years of age.

College Training

Dorrance completed the work in the grades at the age of thirteen, entered high school at Philippi, and a few years later began his college work at what is now Broadus College. Graduating from there, he then took a four-year course at Bucknell University in Pennsylvania, from which school he received his degree. At this writing he is Principal of one of the ward schools in Sioux City, Iowa. He married Erma Marsh, who had been a teacher in the Philippi schools for four years. They have two children, Susan and William D.

Gay followed her brother through the grades, graduated from Broadus College, and went to the Ohio State University, from which she received a degree in Home Economics in 1917. Subsequently she accepted a position in the Extension Department of the West Virginia University, where she remained about eighteen months. Her husband, Robert B. Dustman, is also a graduate of the Ohio State University. Recently he was awarded the Ph. D. degree from the University of Chicago after which he became Chief in Agricultural Chemistry at the University of West Virginia. Previous to this time he had served for a number of years as Extension Specialist in Crops and Soils at the Ohio State University. They have two children, Robert B., Jr., and Mary Jean.

I have discharged the duty that I believe every father owes to his children, that is, I have provided them with a fairly good education. This has given them something that no one can take from them. A great many people have the idea that the world owes them a living whether they make any effort to earn it or not. We tried to teach our children that the world owed them nothing, but that they owed the world the purest and most noble and active lives they could give to it. Because of their superior advantages over their parents, the world will demand, and have a right to expect of them, more useful lives than their parents have been able to lead.

Livestock Shipping

I was so eager to make money and get out of debt that I engaged in many things in which I thought I could earn a few dollars. These efforts did not always bring success. The shipping of livestock was one business that, had I left alone, I would have had more money to spend on other things. I was in the business from 1890 to 1900 and shipped thou-

sands of sheep and cattle. All these years I had a partner in the person of I. C. Woodford. In justice to Mr. Woodford I would say that our failure to make money at this business was no more due to him than to me. He did his part well and I tried to do mine well. But in the nineties no one went ahead very rapidly financially. It is hard to buy so as to make a profit on a declining market and that was the kind we had most of the time.

I recall a carload of cattle which we bought of Mr. T. They were good butcher cattle that averaged about 1,200 pounds. We bought them for two and one-half cents per pound or \$30 a head. Mr. T. had asked me three cents for the cattle and held to that price for a long time but finally agreed to sell them at two and one-half cents. We shipped the cattle, my partner going to the market with them. On his return we figured up what we had made and after paying all expenses we found that we had a profit of 86 cents on the load of cattle. They were sold in Philadelphia for three and one-fourth cents per pound. Mr. T. claimed after he had sold the cattle that we had mesmerized him into giving us the cattle. I do not know what would have happened had he been able to mesmerize us. He never felt kindly toward us from that date forward.

Deals in Lambs

On one occasion I went to Baltimore with three loads of cattle and a single deck of lambs (125 head). The cattle market was good that week and I sold the three loads, making us \$300. The lambs were consigned to a commission man who sold them for me. When I had paid the freight and the commission I had \$70 left for the 125 lambs.

On another occasion I had bought a lot of lambs of Mr. J. at five cents per pound. We had balanced the scales and driven in a draft of lambs when there came one of the hardest downpours of rain I had ever witnessed. After the rain was over we went back to the scales. The platform was covered with water and the lambs were soaked to the skin. I suggested that the lambs be driven off while the scales were rebalanced. Mr. J. objected strenuously, weighed both lambs and water and went to the house after notifying me that he would accept settlement on no other basis.

One winter I went to Toronto, Canada, in search of stock cattle. We found none on the market that suited us. Finally we drove out into the country 60 miles with a Canadian shipper, and spent Sunday in his home. On Monday morning the thermometer was 40 degrees below zero, but we drove all day in a sleigh and by night had bought two carloads of cattle.

Sometimes we bought only one animal in a place and, although the shipping point was eight miles from them, these Canadians drove their cattle in lots of one, two, three and four all of that distance and helped us load them. I doubt whether a place could be found in the United States where the farmers would be willing to do so much.

Most Shippers Fail

Shipping livestock is a fascinating business. Very few men ever quit after they commence until they break up and most of them do fail. In the fall of 1900 we had quit shipping for the season when a friend called me up from a neighboring county saying he had a load of good cattle he wanted to sell. After he had described

(Continued on page 28.)

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WE USE IT!



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The World's First Mulch Paper Planting Manual Free

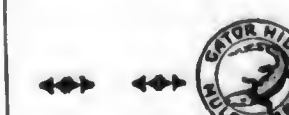
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INTERNATIONAL PAPER CO.
Mulch Paper Division, Dept. X 7
220 East 42nd St., New York, N. Y.



At left: Reverend Doctor Hanks of Michigan, N. Y., and his tomato plants, growing through Gator-Hide Mulch Paper. "Many of the tomatoes," reports Dr. Hanks, "weighed from 9 to 10 pounds." Above: Warning's Farm, near Buffalo, N. Y. Cultivators reported in double rows through Type A, 30 inch Gator-Hide Mulch Paper.



GATOR-HIDE Mulch Paper

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Please send your booklet, "The Miracle of Mulch Paper and the Gator-Hide Mulch Paper Planting Manual," and tell me where I can secure a supply of Gator-Hide Mulch Paper in this territory.

My dealer is.....

My name.....

My address.....



WHAT'S IN A NAME

Well, when you're talking about paint, there's a whole lot in a name. In fact a name is all you have to go by. You can't analyze your own paint. You have to depend on the name on the label. Any paint you see the Felton-Sibley label on you can be absolutely sure of, because F-S have been making the best paint on the market since 1863.

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Send for Booklet B. Sent FREE to anyone on request.
All about "Color in Modern Decoration."

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Ready Mixed Paints

THE ADVERTISEMENTS in Pennsylvania Farmer contain information that is valuable and important. Read them and when answering them mention Pennsylvania Farmer. It will help us and help you.

Seed Corn

Early Glaze and Early Golden Surprise. Excellent yields and one to three. 100, 125, 150 bushels per acre. Also, SENSATION Seed corn. Sublimus Hybrid, Mammoth No. 1, Beans, Broadleaf, Seed Potatoes, Alfalfa, Clover and Grass seeds. Write for samples and circular.

THEO. BURT & SONS, Box 50, NELROSE, OHIO

Walsh Garden Tractor
For Gardeners, Florists, Fruitmen, Suburbanites
Plows, Seeds, Cultivates, Mows Lawns & Hay
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SPECIAL FACTORY PRICE
New Improved Models—Catalog Free
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ENGINE. HAS QUICK RETURN
CRUM AND GAND BEARS BOTH
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HAUCK WEED BURNERS

The modern, sure way to kill weeds. One burner burns 100 sq. yds. in 10 min. Burns weeds, grass, brush, etc. No smoke, no odor. Used by gardeners, farmers, country clubs, etc. Write for literature. Hauck Mfg. Co., 112 Tenth St., Brooklyn, N.Y.

Read the Advertisements

they keep you to the fore of modern life. Through advertisements you've laid down the shovel and the hoe. You can buy a whole harvest ready-to-eat in cans. You've hung up the fiddle and the bow, for a radio. There's little old-time work left in this age of amazing short-cuts. Read the advertisements carefully and when answering them, say you saw their ad in Pennsylvania Farmer.

Garden and Truck Crops

By GILBERT S. WATTS

ON April 21st we opened our roadside market with spinach, rhubarb, parsnips and onions on display. Although this is a rather limited assortment, sales have been worth while. In addition early opening with the things that are available presents a good opportunity to convince customers that only one's own products are being offered. These who do the selling inform customers what vegetables will come on next and the approximate dates.

THOSE who go on the retail markets early scarcely can afford to overlook fall-sown spinach. Only one variety, Virginia Blight Resistant Savoy, is worth planting in this way. Wheat seeding time, or possibly a week earlier, is about right. Mulch lightly to protect from winds and heaving.

THE fall-sown green manures are most interesting at this season when most of them are ready for the plow. Sown in the same field, side by side, rye in mixture with vetch is noticeably more green than rye alone. A mixture of timothy and vetch was sown between tomato rows at the last cultivation.

On account of the dry fall very little growth was made before winter. But now we have strips of good sod covering two-thirds of the soil surface. The same mixture sown in cucumbers at the last cultivation also will add a considerable amount of organic matter with very small expense. More and more I am convinced that consistent employment of suitable

green manurial crops makes it possible to grow a truck crop each year and at the same time build up fertility. Not that good clover sods are less valuable than has been claimed, only that some of us do not have space or time to grow them.

HOW the strawberry plants we set very early this spring are growing! Which reminds me that the two finest crops of strawberries that I ever have grown were from plants that were set when the air was so cold and raw that we will not soon forget the experience.

TOMATO planting time soon will be at hand. Ample spacing between plants and free ventilation, especially after some size is attained, will insure the sturdy, stocky plants that are best able to withstand the shock of transplanting, extremes of temperature, and the high winds.

Squashes

Will you kindly inform me where I can secure reliable information on growing and marketing Hubbard squashes? F. T. Schriener, Crawford county, Pa.

IN reply to your request for a source of information on squashes I would suggest that you request from the Extension Service, Massachusetts Agricultural College, Amherst, Mass., a copy of Extension Leaflet No. 101.

Ordinarily striped beetles on cucumbers and squashes may be kept in check by frequent dusting with one pound of calcium arsenate to 20 pounds fine ground gypsum or very fine pulverized limestone.

Value of a Garden

FARM sales have been numerous. Prices for horses have been better than for several years; cows lower, from \$70 to \$100, for good cows. Young stock sold well. Hogs seem scarce. A young sow and six pigs sold for \$70. Farm machinery sold very cheap.

A number of farmers are moving to the city or villages, some expecting to compete with an oversupply of labor, others to retire. All of those farms have supplied the country with the best of products, "good stalwart boys and girls."

The state and county and our cities are putting on an extensive road constructing program. In our immediate vicinity they are starting a \$150,000 joint county, state and borough road.

Our farmers have been busy plowing, hauling manure and repairing fences. Plowing is not the job it used to be. Old Dobbin looks over the fence and smiles at the odd contraption during his work.

Our truck and market garden men have their early garden in (April 15) — peas, lettuce and onions. The boys from our farm (grandsons) are still in school. They and I farm and mow about 30 acres of our 60 or more acres of plow land, while their dad commutes to work.

How Much Is It Worth?

When the census enumerator asked me how much my garden was worth, I replied that I had the largest and best strictly farm garden in the township. He said he had one valued at \$200. I said mine was worth \$225.

This garden, one-half acre in extent, furnishes fresh products almost every meal for six months, and canned goods every day for the rest of the year, to a family of ten persons, and to a daughter and her husband in Buffalo. And we have lots of friends come to visit us when cauliflower, we produce 500 to 400 heads of Lima beans are ripe, and all sorts of garden produce. The garden is in Varango county, Pa.

In this plot we do not include cabbage, sweet corn or berries, which we class as field crops.

Say, readers, did you ever feed six growing kids and two hungry workmen—not counting myself and daughter? After careful study I believe I would have been safe at \$300.

I fertilize every year. When we were running a garden and berry farm this plot was used mostly for growing plants and early onions and beets for bunching. We usually stuck one and a half bushels of sets. It is ten rods long.

No Trash Here

I plant it in rows. My seed bed and such stuff as onions, lettuce, spinach, beets for early use, I space 12 inches apart and use a scraper (either a hoe two inches wide) never disturbing the roots. Lima beans, peas, tomatoes, summer squash, 40 inches; beans, carrots, beets and for winter storage canning, etc., 20 inches. I use a faithful old mule to cultivate a few times, but rely on a sharp hoe mostly. "Cukes" take seven feet through the center.

Excepting to plow, harrow and cultivate, I have done all the work in this garden. The boys say I am too particular. Perhaps I am, but I hate to see a job of butchering done, especially in the garden. I have practiced with the hoe for 70 years, but want to die in the harness.

The experts tell us to burn all weeds and trash in the fall. We don't have any such "animals" in our garden. As soon as peas, beans and tomatoes are done bearing they are trapped in the manure and I would consider my standing as a gardener impugned if a person found a weed gone to seed. After crops are harvested I open the gate and let the chickens have possession. They do a thorough job of digging and turning the ground and weeds. O. C. Sigurdson, Varango county, Pa.

The MARKET PLACE

By W. R. WHITACRE

THE strawberry season has started and the eastern markets are receiving fairly liberal supplies from Louisiana and North Carolina. Thanks to the refrigerator car and other improved methods of transportation "strawberry short-cake" time lasts over six months.

The first berries come in "reefers" or refrigerator crates from Florida and are often available, to those who have the price, for the Christmas dinner and even earlier. These crates are actually ice boxes, with compartments for ice and berries. They are shipped by express, but along in January and February there are enough berries available to load straight cars. Louisiana is the next state to supply the "makings" for our cake, and by this time the price is generally down where the average consumer can buy an occasional quart.

Period of Liberal Supplies
North and South Carolina are next but in recent years they have switched from rail shipments to the use of the motor truck and are now shipping more berries in this way to the eastern markets than by rail. Close on the heels of the Carolinas comes the Eastern Shore section of Virginia, Maryland and Delaware and then is the period of most liberal supplies. New Jersey often overlaps the Eastern Shore season while Pennsylvania and New York wind up the season.

May and June are generally the months of heaviest supply and in recent years the increased plantings have often resulted in periods of oversupply which were very costly to the growers. The perishable nature of berries makes it necessary to sell them soon after they arrive and they cannot be held for higher prices. These periods of poor prices often rob the growers of the profits that they have made in the earlier part of the season and this has had a tendency to reduce acreages. According to a recent government report, there will be fewer berries this year. The production forecast is 140,711,000 quarts for the early and second early states, compared with 158,704,000 quarts in the same states last year.

Smaller Acreage

The strawberry acreage in all producing areas this year is estimated at eight per cent less than last season and 11 per cent below the 1928 figures. The Florida season is over and the Louisiana crop estimate has been reduced to approximately 2,500 carloads. Louisiana is the largest strawberry producing state and the crop this year is placed at 29,815,000 quarts as against 34,104,000 quarts a year ago.

Philadelphia is a good outlet for strawberries for two reasons. First the people like them and eat them freely and secondly because it is the center of the ice cream industry of the United States. The ice cream industry uses large quantities of berries and they are good buyers. Weather rather than price controls the amount they purchase. Hot weather increases the public's demand for ice cream and sales of berries to the ice cream men improve. The buyers demand well ripened stock of good color and green tips are not wanted.

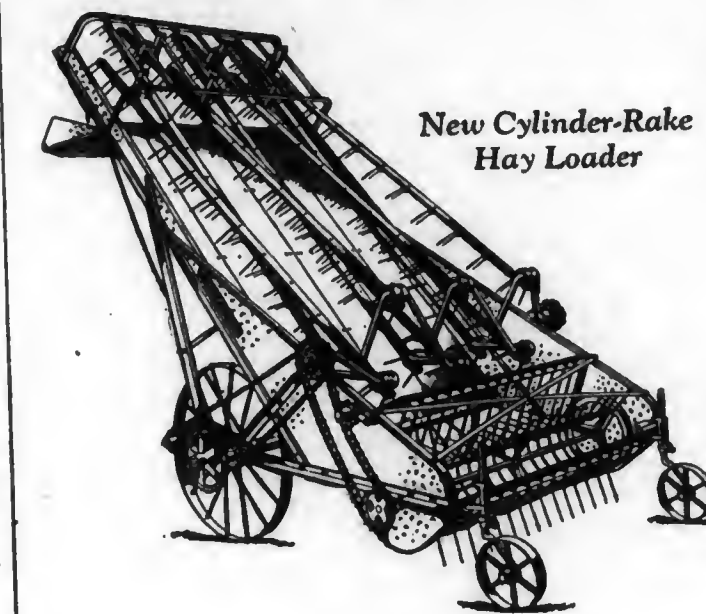
"Milk!" asked Mr. Casey, "can your wife cook as well as your mother did?"

"She can not," replied Mallicki, "but, my friend, I never mention it, for she can throw considerable better."—Argonaut.

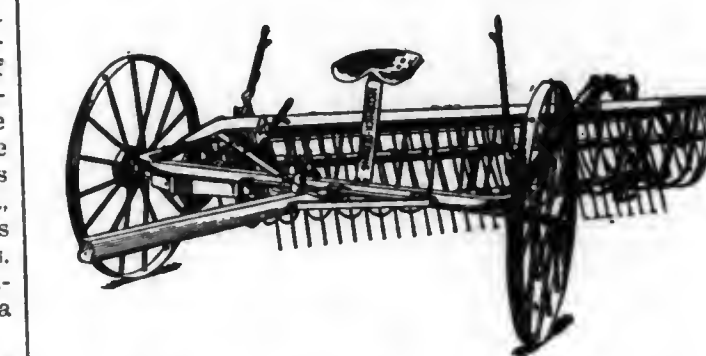
"Beg pardon, sir," said the doorman at the high class club entrance. "Haven't you made a mistake?"

"I reckon not," replied the young gent. "The sign on the door says 'No admission,' and if they're no admission, it's free, ain't it?"

When the Sun Is High — Make Hay the McCormick-Deering Way



New Cylinder-Rake
Hay Loader



WHEN the sun blazes at haying time, owners of McCormick-Deering Haying Machines experience great satisfaction in knowing they have tools that can handle a bumper crop quickly or make the most of a short crop.

The complete McCormick-Deering line includes horse-drawn and power-driven mowers, combination side rakes and tedders, self-dump rakes, the cylinder-rake and the windrow hay loaders, sweep rakes, and stackers.

The Cylinder Rake Loader is a newly-designed combination of the cylinder and rake type loaders and it picks up hay from either the swath or windrow. It is a one-man loader, built entirely of steel with the exception of the rake bars. McCormick-Deering Mowers have long been famous for their high-lift feature and many others that reduce wear. The Side Rakes and Tedders form quick-curing windrows and have ball and roller bearings at important points to provide light draft.

Don't wait until haying time to find out how you stand on hay tools. Be ready for this busy season by checking over your equipment now and seeing your McCormick-Deering dealer.

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THE BEST IN Spraying Products

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NEW PROCESS OIL

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For CROP PROTECTION
also for wet or dry application

LIME SULPHUR SOLUTION
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ARSENATE OF LEAD
BLUE STONE
NICOTINE SULPHATE
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The Little Wonder Weed Exterminator will positively destroy them.

A spraying solution (not a chlorate); costs only 6c per gallon; will not ruin the soil nor kill cattle. Write for free illustrated booklet.

REBER CHEMICAL COMPANY
Reading, Pa.

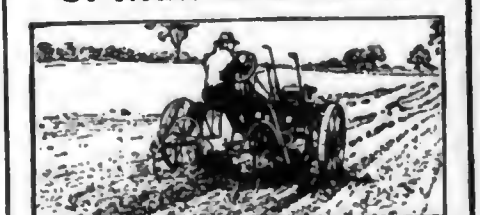


"MARUGG'S SPECIAL"
MARUGG'S GERMAN "Dangel-Edge" SCYTHE
Exclusively made and imported by us since 1878. Are praised by Postmen, Artists, Surveyors, Farmers and Caretakers of Lawns in every State. Catalog free, address: The Marugg Company, Dept. P, Tracy City, Tenn.

BERRY BASKETS and CRATES at Winter Discounts

SAVE MONEY ON BERRY BASKETS
BUY at Factory Prices and
WINTER DISCOUNTS.
Write for FREE CATALOG—NOW.
THE BERLIN FRUIT BOX CO., Berlin Heights, Ohio

It Does All the Back work, Arm work Leg work of Man and Team



All the arm-tiring, leg-wearying, back-breaking work of tilling the soil is done by the Centaur—the new improved 6-10 h.p. tractor. All the driver has to do is supply the brain work, guiding the tractor and watching the tools.

A little brain work in getting the information on this tractor now will save you a lot of hard work on your farm, truck farm, in orchard, grove or vineyard. It plows, discs, harrows, plants and cultivates, making the small farm a real power farm. . . . Send the coupon for complete information on tractor and tools.

CENTAUR TRACTOR CORPORATION
29 Main Street Greenwich, Ohio
Please send new catalog on Centaur Tractors and Tools.

Name.....
R. D..... P. O.....
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THE YOUNG PEOPLE

They Made the Best Better

THE Lititz Four-H Garden Club of Lancaster county, one of the most successful Four-H clubs ever conducted in Pennsylvania, has decided to continue after four years of very outstanding work. The girls intend to do homemaking club work, while the boys are going to try their hands at growing tobacco and feeding baby beebes. They got out about \$1,500 over the four-year period.

The club was first organized in the spring of 1926 with ten members, two of whom dropped out. The first year they took over the home garden and proceeded to grow the vegetables needed for the family table. They were required to grow at least twenty-five varieties. They were successful and with an eye for business disposed of the surplus by supplying the needs of various families residing in Lititz. Some of the products were sold in the public market in Lancaster. They had an average return of about \$20 over and above their expenses at the end of the year.

The following year they expanded and planted more vegetables. In order to facilitate the disposal of their products they rented a booth in the public market house where they offered their surplus products for sale. They sold \$178 worth of foodstuffs picked fresh from the garden. The club finished with eleven members.

In 1928 the club again expanded. Some of the members grew flowers, others joined a canning club, which had been organized in the neighborhood. The average size of their gardens was about one acre. Their profits ranged from \$40 to \$100. For the second time in succession their exhibit of vegetables was awarded first prize in the Lititz Farm Products Show, in competition with adult organizations.

This past year special crops were grown, such as celery, sweet corn,



Drawn by Hope Lehigh

a stunt which provoked much merriment. The Lititz club put this on so well that it was requested they perform it for the benefit of those attending the annual meeting of the Lancaster Agriculture Extension Association, which they did.

Mary Brubaker, who was one of the outstanding members of the club, serving as president for the first three years, was a delegate to the National Four-H camp for club members, which has been held annually at Washington for the last three years. She qualified for this honor by her work in a homemaking club, in addition to her efforts as a gardener. Another member is at present a student at Pennsylvania State College.

James F. Keim.

A Bird Bath

SET in a wooden box the granite dish which serves as the bath. Lining the dish with paraffin prevents its rusting the first season. On each corner of the box nail a three-cornered piece of wood where the birds may perch. Nail the box on one end of a two-by-four-inch piece of lumber. On the other end of this board nail another piece of wood to serve as the foundation of the structure and set up the bath in the garden, heaping stones on the bottom board to keep it balanced.

Be sure to make the bath sufficiently high so that a cat cannot jump into it, and see to it that the rim of the dish is narrow enough for little claws to curl over.

Indian Doll

MAKE an Indian face of paper, color it red, and paste to the head of a clothespin. Use black darning cotton for the doll's hair. Braid it into two braids for a girl. Then fasten it to the top of the clothespin

MOTHER'S KISSES

They're good for bumps, and good for lumps.
They're even good for dumps and grumps.
They're good for stings of "lumpy bees".
And barks from "shinnying" cherry-trees.
For splinters, sun-burn, "shocker-ries".
For "bumped feelings" after fights.
And scratches, scratched skin, and bites.
Mother's kisses.
There's naught so pure, there's naught so sure,
For pained fingers, stubbed toes,
And all the long, long list of woes.
Yet do you ever think it queer
That while they're fine for every fear
They're just as fine with all the blues?
Mother's kisses.
—Annie Balcomb Wheeler.

with paste, letting the hair and braids fall around the face. Use brown crepe paper for making clothes, cutting slashes for fringe around the skirt and coat. Trim with bright yarn and beads.

That Disappointed Boy

I FEEL sorry for that "Disappointed Boy" and the others who want to leave their fathers' farms. I have splendid parents and I never get any stock of my own. My two cats are all I have.

I just want to say to those boys—remember you are putting your feet under your Dad's table, staying under

his roof and also using his pocket-book for clothing. Now think of being an orphan without parents—no one to love you like your mother who always takes your part.
I am going to stay right here on the farm as long as possible. I am a girl fifteen years of age.
A Contented Girl.

NEXT WEEK

CARTOONS and stories in our recent contest about school will appear next week. Announcement will be made of new and interesting contests. Watch for the Young People's page next week and join in the fun.

Little Folks' Corner

When We Grow Up

LAST week we asked the Little Folks to tell us what they were going to do when they got big. Here are just a few of the many interesting letters which have come in. It seems about five hundred girls are going to be school teachers; quite a number want to be nurses; two think being a missionary quite the finest thing on earth while the boys, for the most part, prefer to stay "with Dad."

Lewy McB. has this to say:
"I am nine years old. When I grow up I want to be a clerk in a big candy store where there are many different kinds of candy, peanuts and other good things to eat."

Belle A. is going to be a big help to some editor.
"When I grow up I'm going to find puzzles for the little folks to find out what they are. I think it so much fun now."
Why not send us some, Belle?

But Ada E. is tired of being bossed. Listen to this:
"When I grow up I want to be an old maid and live in a little house by myself and have everything just the way I want them and I'll be my own boss. It will be wonderful not to hear my sisters saying, 'Ada do this' and 'Ada do that' all the time."

A CLOWN

Did you ever see a circus with animals and things?
I saw a circus once with three big rings.
The clowns made me laugh so much.
I forgot my sister Anne.
Who was looking at the pictures on the tattooed man.
When I am big, I'm going to be a regular circus clown.
And I'll make fun for everyone in our home town.

time, I'll do sewing and washing for other people and I'll soon be a rich old maid."
Don't you think you better have a cat, Ada? Just in case you get lonely!

Elizabeth W. is one of the five hundred who want to be school teachers.
"I'm going to be a school-teacher. Not the cranky, strict kind but a pleasant so-cial teacher. When I am old and cranky I'll retire on a pension. Then I will sit back and take life easy."

Letha C. is only eight years old but she is quite sure what she is going to do.
"I am only eight years old but when I get big I'm going to powder and paint like the big girls. I am going to ride around in a big car with my beau. I am going to work in a big factory and dress in my best things there. I am not going to stay home and milk the cows and feed the chickens. What's the use of doing such things for you can't make money that way."

Betty W. says:
"I am now ten years old and in the fifth grade. I like our Young People's page very much and always hunt it out the very first thing when we get the paper. My greatest ambition is to become an editor. I like to write stories. We had a program at our school and I wrote an original Easter story which my school teacher is having published in one of our town newspapers. I am going to try to get an education so I can be a story writer some day."

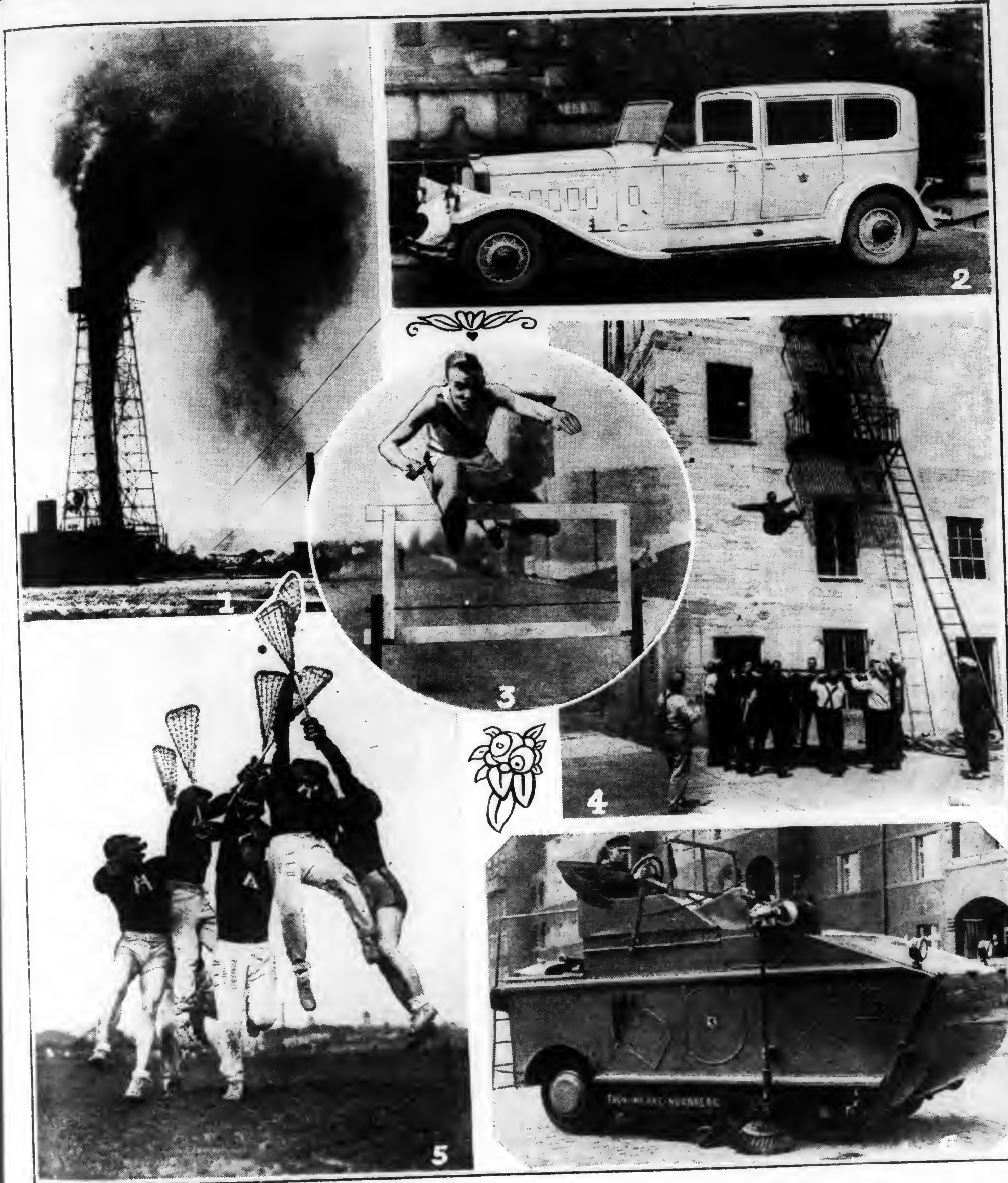
The Little Folks want to read your story too, Betty, so send a copy of the paper.
"First of all," says Donald W., "I want to grow up and be a good honest man. I am doing all my health rules so I will be a strong man, able to carry on my work



By E. D. Barnhart, Pennsylvania

Prizes for the best coloring of the sailor boy. Hurry him back to Little Folks' Corner, Pennsylvania Farmer, 7301 Penn Ave., Pittsburgh, Pa.

PASSING EVENTS IN PICTURES



(Copyright by Underwood & Underwood)

1. The No. 1 Mary Sudik Oil Well at Oklahoma City, Oklahoma, spouted for nearly ten days at the rate of 2,000 barrels an hour, with an estimated flow of gas of 200,000,000 cubic feet per day, before workmen could finally fit a special die nipple into place, which brought it under control.
2. The most expensive car in the world—a specially built white Pierce-Arrow for His Imperial Highness, the Shah of Persia. The metal work, including radiator, lamps, bumpers, running boards and giant hub caps are heavily plated with gold. Replicas of the royal crown, studded with gems, are mounted on doors and fenders.
The interior is tailored in champagne-colored

silk rep, embroidered with the royal insignia of Riza Khan's family. A robe of Russian wolfhound fur is used as a floor mat. A diamond studded cigarette case and smoking set are included. The trim is of intaid satinwood. Chassis is standard Pierce Arrow 144-inch wheel base and the straight eight motor develops 132 h. p. The gems used for decoration are worth \$500,000. It is estimated.
3. Chicago, Illinois.—Lee Sentman, 75 yard high hurdles champion, is a sophomore at the University of Illinois and will be a likely candidate for the 1932 Olympic games. Photo shows how a champion takes the hurdles.
4. Los Angeles, Cal.—Photo shows Assistant Chief E. P. Boyle of Honolulu jumping during

class work at the experimental tower of the L. A. Fire College where department heads from all parts of the country are taught the latest developments of their profession. Assistant Chief S. H. Dodd of the Los Angeles department heads the college.
5. Six souls with but a single thought. Photo shows a fine action picture of members of Harvard's Varsity lacrosse team reaching up for a high ball during practice for their lacrosse game with the British aggregation from Oxford and Cambridge Universities.
6. Berlin.—Photo shows the very latest in street cleaning machines, resembling somewhat a tank of a new design. It is a combined vacuum sweeper, sprinkler and mopper.

To know what to buy—read the advertisements. They will keep you informed of the latest and best products of the manufacturers. Their aim is to meet your needs. You will find that time spent in reading the advertisements is time well spent. Read them regularly, with care and when answering, mention Pennsylvania Farmer.

Feeds and Feeding

A good hog well fed is most of the story of making money with swine. No other feed matches corn as a pork maker. In olden days we said a bushel of corn should make ten pounds of pork. Occasionally it did and even more when the hogs had plenty of skim milk.

The Inquirer lives in Maryland where corn grows to perfection and

UNADILLA SILOS

UNADILLA SILOS

THE W. R. HARRISON COMPANY
Manufacturers
MASSILLON OHIO

JOHN W. Eshelman & SON
ESTABLISHED 1842
LANCASTER, PA.

**PHILADELPHIA
SILOS** in

Wood-Concrete-Tile
 New features—step every 15", large
 or opening. New Tile, our own fac-
 tory connection. Special Prices Now
E. F. SCHLICHTER CO.,
 10 South 18th St., Phila., Pa.
 Room 104 P.P.

\$2.00 per sack F. O. B. car.
Any quantity from one sack up.
SHENLEY PRODUCTS CO.
SHENLEY, PA.

There is an Eshelman Guaranteed Feed to meet every

This County, remarkably clean of infectious disease, with a sales organization of 50 years standing, a cattle population of 50,000 is in a position to supply buyers any number of carloads at prices \$25.00 in grades and \$50.00 in pure-breeds under prices of 1 year ago. Our services are free.

Crawford Co. Co-op. Dairy Imp. & S. Assn.
Market House, Meadville, Pa.

4% MILK Big Milkers - - Hardy Run
Good Grazers - Perfect Use
Write for Booklets
Ayrshire Breeders' Assoc.
205 Center St. Brandon V.

For Sale—Jersey Bull Calf
dropped 2 2650. Solid color long deep body
straight back, sired to grandson of 8x Bull's
hoge and out of dam with official test of
this milk, 552.02 lbs. fat, averaging 5.04%
years. Price \$125.00. Federal accredited
blood tested. Highland Farms, Greensburg

Holstein Bulls for sale, from an acc-
herd, from calves to a
able age, from K. P. O. P. 52, the 1,100-lb
ter and 1½ bull. Also females
Crystal Spring Stock Farm, Littlestown

TWO GOOD JERSEY heifer calves, 2 months, from extra cows. Accredited by **W. F. McSPARRAN**, Furness.

AYRSHIRE CATTLE of the best blood. Herd T. B. Accredited. Animals of both all ages. **Geo. B. McConnell**, Wellington.

AUCTION SALE

200 Dairy Cows

MAY 12th, 1930

9:00 A. M.

Sale Rain or Shine - - Plenty of Shelter.

On Harford Road, 15 miles North of Baltimore
Seven miles South of Bel Air, Md.

Registered and High Grade
Holsteins and Guernseys.

Fresh Cows and Springers.
JUST RECEIVED FROM WISCONSIN.

W. F. ANDREWS, BEACH CITY, OHIO
AUCTIONEER.

GEORGE W. WHITE,
FORK, MARYLAND

THREE GUERNSEY AUCTION SALES

We Are Offering at Public Auction 254 Head of Quality Guernseys,
All Negative to the Blood Test.

44 Bulls 91 Cows 119 Heifers

COVENTRY-FLORHAM ANNUAL SALE

Trenton Interstate Fair Grounds

TRENTON, N. J., Thursday, MAY 22

61 HEAD QUALITY GUERNSEYS

all negative to the agglutination

blood test for contagious abortion.

11 Bulls - 28 Cows - 22 Heifers

A few of the sires represented include: Imp. Coventry Valentine's Honour, Florham Patrician, His Grace of Glencairne, Holliston's Slogan of Langwater, Honoria's Sequel Slogan, Lone Pine Senator, Langwater, Paraoah, Langwater Sheik, Langwater Holliston, Majesty of Linda Vista, Majesty of Hill Girl, Maple Glen Rose Laddie, Masher's Elsie's May King, Noranda, Imp. Sailor Lad V. of the Fontaines.

GUERNSEY CONSIGNMENT SALE

Trenton Interstate Fair Grounds

TRENTON, N. J., Friday, MAY 23

(The day following the

Coventry-Florham Sale)

80 HEAD of Quality Guernseys all

negative to the blood test.

17 Bulls - 27 Cows - 36 Heifers

A few of the sires represented include: Atamansit Eclipse, Bickleigh III, Brookmead's Masterful, Duke of Royal, Corn's Royal Lad, Flooyland Justice, Green Meadow Fearless, Green Meadow Flashlight, Highland Chief Justice, High Point Maxim, Langwater Music's Dimple King, Langwater Star Shoot, Langwater Sunny, Langwater Squire, Imp. Primrose Butterfat, etc.

MORVEN PARK DISPERSAL

WESTMORELAND DAVIS, Esq., Proprietor

110 HEAD - FRANCE-MAY ROSE GUERNSEYS

The sale will be held at the farm

LEESBURG, VIRGINIA, Saturday, May 24, 1930

A few of the sires represented include: France's Excelsior's Champion, Langwater Darnley, Langwater Mariner, Morven's Peerless, Mixer Challenger, Morven's France's Excelsior, Morven's Dawn of Day, Morven's Senior, Monticello of Loust Grove, May Field's Etienne Prince, Morven's Etienne Prince, Perfection of Big Spring, Royal Blue, Treador of Big Spring Farm.

For Catalogues Write THE HERRICK-MERRYMAN SALES CO., Sparks, Maryland

SEEDS AND NURSERIES

CABBAGE PLANTS - Copenhagen, Charleston, Golden Arrow, Imperial, 500 \$1.25; 1,000 \$2.00; 2,000 \$3.00; 3,000 \$4.00; 4,000 \$5.00; 5,000 \$6.00; 6,000 \$7.00; 7,000 \$8.00; 8,000 \$9.00; 9,000 \$10.00; 10,000 \$11.00; 11,000 \$12.00; 12,000 \$13.00; 13,000 \$14.00; 14,000 \$15.00; 15,000 \$16.00; 16,000 \$17.00; 17,000 \$18.00; 18,000 \$19.00; 19,000 \$20.00; 20,000 \$21.00; 21,000 \$22.00; 22,000 \$23.00; 23,000 \$24.00; 24,000 \$25.00; 25,000 \$26.00; 26,000 \$27.00; 27,000 \$28.00; 28,000 \$29.00; 29,000 \$30.00; 30,000 \$31.00; 31,000 \$32.00; 32,000 \$33.00; 33,000 \$34.00; 34,000 \$35.00; 35,000 \$36.00; 36,000 \$37.00; 37,000 \$38.00; 38,000 \$39.00; 39,000 \$40.00; 40,000 \$41.00; 41,000 \$42.00; 42,000 \$43.00; 43,000 \$44.00; 44,000 \$45.00; 45,000 \$46.00; 46,000 \$47.00; 47,000 \$48.00; 48,000 \$49.00; 49,000 \$50.00; 50,000 \$51.00; 51,000 \$52.00; 52,000 \$53.00; 53,000 \$54.00; 54,000 \$55.00; 55,000 \$56.00; 56,000 \$57.00; 57,000 \$58.00; 58,000 \$59.00; 59,000 \$60.00; 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The Stock Company Stallion

THE salesman of stock in a company stallion is the man who can, for a few days' work and a few hundred dollars of the farmers' hard-earned money, make a great sacrifice in the interests of horse breeding. And such a sacrifice! Ten days time in some communities, perhaps a share of the thousand or twenty-two hundred dollars profit, to a selected few of the leading farmers of the community.

Let us look at the proposition squarely. In the first place we can agree to the statement that horses are essential to agricultural prosperity. Not only are they necessary in tilling the soil, but they furnish a market for certain farm products.

It is a recognized fact that the quality of the horses used has improved. Many undesirables are being weeded out. The light draft horse is not in great demand. The owner or driver cannot get a great deal of satisfaction out of such motive power. He is, therefore, looking for a good-sized, well-developed, efficient power unit to do the farm work and utilize crops raised on the farm.

Raising Colts

Many mare owners are considering the matter of raising colts. This can be done and the owner get a good season's work from the mare. This belief in value of colt raising involves certain problems, one of which has to do with securing the services of a suitable sire. In some communities this problem is solved by the purchase of a stallion by some individual who is interested in furthering the horse industry, and who is capable of handling a stallion. In other communities an attempt is made to solve the problem by placing a company stallion in a community as a means of lessening the original cost per individual. But does this plan lower the cost?

The answer to this question can be obtained by looking over the records of companies purchasing such stallions. For example, ten men have purchased a stallion at \$300 per share or a total of \$3,000 for the stallion. How many stallions are worth \$3,000? Does the company stallion salesman handle this type of horse?

To the questions one can reply that International grand champions have been purchased for this figure, but such horses do not get in the hands of a dealer. The company stallion salesman handles stallions costing from \$250 to \$800. It is possible that he may have a few over this sum but the major portion can be purchased for \$300 to \$600.

Converts to the Cause

In the same county where the above case was recorded a 2,100-pound, seven-year-old stallion could have been purchased for \$700 or \$70 per man of the same company. His offspring could have been seen and the breeding of stallion definitely determined. A younger stallion might have been purchased for \$400 by the same group.

We have great faith in human intelligence in most matters. But in the matter of purchasing stallions there seems to be a deviation from normal procedure. Nor do we feel that horse breeding can be stimulated by this method. With the number of high-class horse-breeding establishments in Pennsylvania; with the demand for many carloads of replacements annually; with information regarding horses available, it would seem logical that attention should be paid to good, sound purchases of breeding stock.

We feel reasonably certain that before the notes on this year's company stallion purchases have been met, we will have at least twenty converts sitting down in the amen corner and with hands on their wallets, declare in all seriousness, "It can't happen again." J. F. S.

The Farmers' Interest In This Campaign

There are several aspects of this Primary Campaign which are of serious concern to the people of the rural districts of Pennsylvania and especially to the farmers of the State.

As a candidate to succeed himself, we believe that United States Senator Joseph R. Grundy commands the confidence and respect of all our citizens. His ability has been proven, and his integrity is unquestioned. His appointment to the Senate last December, by Governor John S. Fisher, was acclaimed with approval by the press and people alike, and there has been nothing in his conduct since, or in his handling of the public problems that have come to him as the lone Senator from Pennsylvania during the prolonged absence of Senator Reed at the Naval Arms Conference in London, to warrant any change in that public opinion and attitude.

Indeed, it is a highly significant fact that the chief argument which his opponents for the place bring against him, is that they themselves want the office. And that is wholly negative reasoning.

It should be of interest to the agriculturalists of Pennsylvania that although Senator Grundy has been an outstanding industrialist, he is himself a farmer and has lived upon a farm nearly all his life. Naturally, he has a first-hand knowledge of, and a keen sympathy with, all of the farmers' problems. As a Senator, he voted for every protective duty that was proposed for farmers in the pending tariff bill.

For years Senator Grundy has been the acknowledged political leader of Bucks County. Acting under his guidance and advice, the members of the Legislature from that County have been among the best friends that rural and agricultural Pennsylvania have had in the State law-making body. Particularly has Senator Grundy's support of all constructive legislation for the rural and agricultural districts been furthered by State Senator Clarence Buckman, of Bucks County, who is chairman of the Good Roads Committee, and by Dr. W. A. Haines, Representative from Bucks County, chairman of the Agricultural Committee of the House.

But never was Senator Grundy's character shown to better advantage, nor his loyalty to his State and his friendship for the town and country sections more conclusively proven, than when he flatly and unqualifiedly declared that he would far rather retire from public life than ally his candidacy with those whose avowed purpose is to raid the State Treasury for the support of large projects in the City of Philadelphia.

He refused to have any dealings whatever with the Philadelphia Organization. It was then that the discredited Philadelphia Machine picked James J. Davis as its candidate for Senator.

We believe that in the light of these facts we are justified in asking you to

Vote for
JOSEPH R. GRUNDY
for
United States Senator
PRIMARY ELECTION Tuesday, May 20th

Advertisement paid for by the
Republican Committee for Joseph R. Grundy for United States Senator

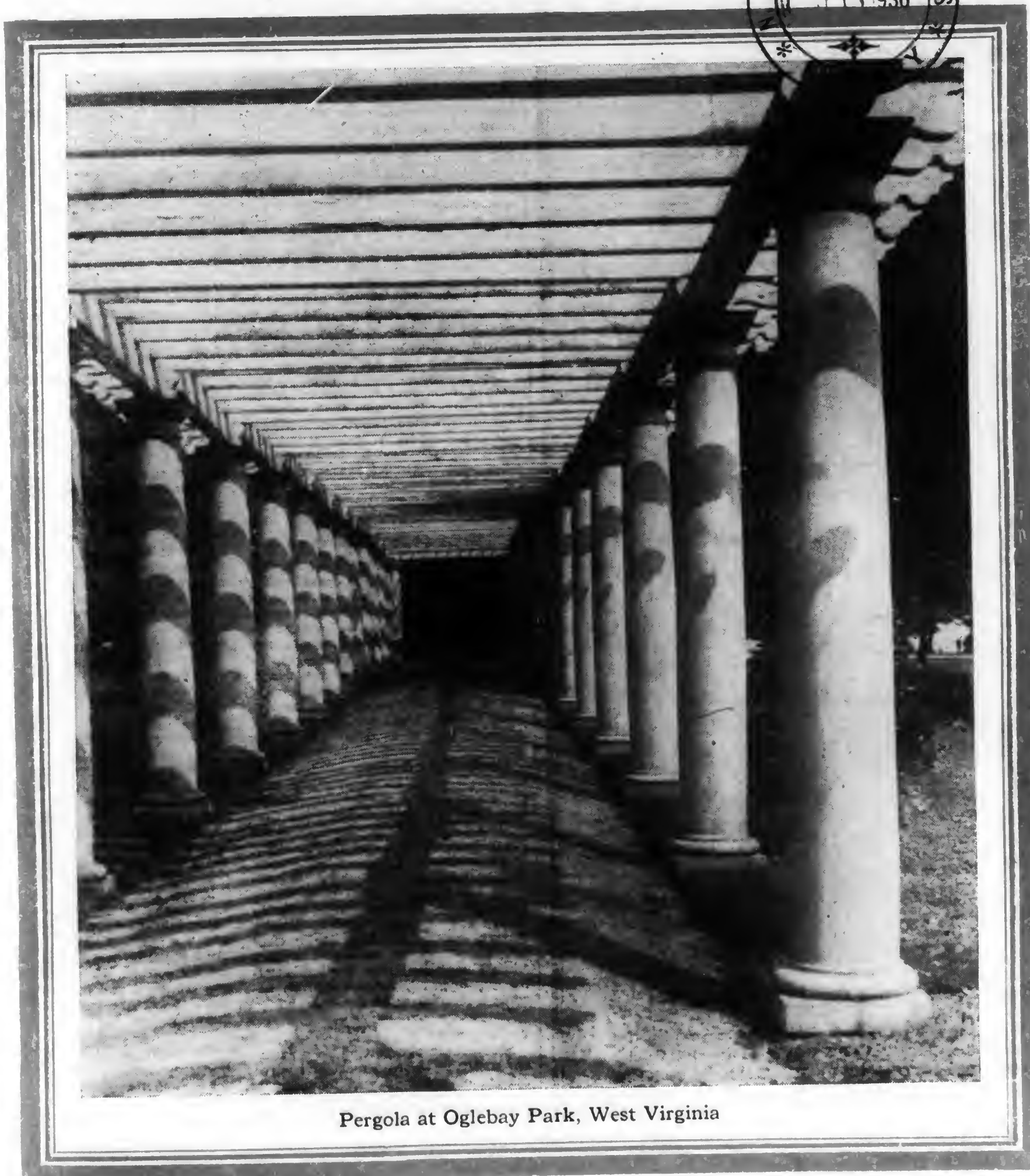
PENNSYLVANIA FARMER

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Established
1877

Consolidated with PENNSYLVANIA STOCKMAN and FARMER

May 17, 1930



Pergola at Oglebay Park, West Virginia

Philadelphia

Pittsburgh

Harrisburg

**Put feed purchases
on the cold blooded
business basis of re-
sults by insisting on
Park & Pollard feeds.**

Try it
and prove it—

Dependable Feeds for Every Purpose

Poultry Feeds: Lay or Bust Dry Mash • Red Ribbon Scratch • Growing Feed • Intermediate Chick Feed • P & P Chick Scratch • P & P Chick Starter—Dairy Rations: Overall 24% • Milk-Maid 24% • Bet-R-Milk 20% • Herd Health 16% • Milkade Calf Meal—Other Feeds: P & P Stock Feed • Bison Stock Feed • Go-Tu-It Pig and Hog Ration • Pigeon Feed • P & P Horse Feed • Pocahontas Table Corn Meal.



Oxford May's Int. Owl 205447, a pure-bred Jersey sire with ten daughters awarded Silver Medals on their first tests, takes his daily exercise by hauling a cart on the farm of the U. S. Bureau of Dairy Industry at Beltsville, Md.

Farm Facts and Fancies

By ALVA AGEE

CAPTAIN DAVID SHIELDS, of Allegheny county, Pennsylvania, regards the ordinary commercial fertilizer as only a stimulant, and he writes an interesting letter giving his views of coal, clay and salt water as a fertilizer. He backs up his statement of the work of the latter mixture by sending a liberal sample of treated soil, that cost him quite a few dollars for express charges, and a sample of the mixture used. Then by mail he sent a portfolio containing some excellent photographs of crops. He says that coal is humus, the clay is the material in which the vegetation grew that made the coal, and that these two, together with subterranean salt water, provide all that the soil needs.

One soil and subsoil sample, taken from a field seeded to grass seven years ago, shows that the original plastic clay has been mellowed and is producing a heavy grass sod, while another sample taken nearby from land fertilized by chemicals is compact and evidently not productive. The photographs support all that the Captain claims for the mixture.

Surrendering One's Views

Now, I do not believe that Captain Shields expected that I could readily accept the thought that the orthodox belief is all wrong, and that certain proportions of nitrogen, phosphoric acid and potash need not be added to a poor soil to make it productive. Of course these soil samples are disconcerting, and so are the photographs, but it is mighty hard for a man to swap beliefs. That is what makes it difficult for those who blaze new trails.

The Captain does not even ask me to believe, but he courteously suggests that I try some pot experiments like those he photographs, and thus to learn for myself. That is about the only way to get any new startling truth across to a white-headed man. And so I got the pots and some seed grain and shall see what results. My scientific friends now know exactly what will happen, and curiously enough, on the opposite hand, Captain Shields knows what will happen, while I shall maintain the impartiality and open-mindedness that so become a man engaged in research.

A Potato Exhibit

Many years ago I attended a farmers' institute where a most attractive exhibit of potatoes was made by a man who grew them on top of a mountain. My memory may not let me tell the story with exactness, but this man had abandoned his profession and gone up on this mountain where the evidence of soil fertility was not apparent. He ripped the surface open to an extraordinary depth and planted potatoes. He did not believe in commercial fertilizers, and he

assured me that manure clogged up the soil so that the water in the earth, laden with dissolved plant food, could not rise freely to feed plants.

Year after year, as it appeared, he was getting crops of fine potatoes, and the yields ended any argument that one might be inclined to start. It would be my guess that yields fell off a little later, but that is only guessing, and some reader may know of the instance and can tell us how long nature acted so curiously in the case of a soil that had been regarded as infertile. And yet, Dr. Milton Whitney, of our federal Bureau of Soils, has long held that we felt an unnecessary dependence on the application of chemicals to the soil, and that nature is equipped to keep our moving soil water pretty well supplied with the elements of plant food.

Ants and Plant Lice

The ant easily qualifies as one of the most pestiferous insects of warm climates. Among its bad habits is that of caring for plant lice. We have two young orange trees that are specially attractive to the aphids. We give them generous sprayings of nicotine sulphate, but within a week after a spraying one may see the ants going up the trees and another infestation of lice is being started. Yesterday I saw a tiny crinkled leaf on a new twig and found on the branch a single aphid and an ant in attendance. It looked like small business for an able-bodied ant, but the aphid doubtless was in the way of building up a colony which it can do in a remarkably short time.

The number of ants around the house and in the flower garden is kept under control with a sweetish poison put into tiny glass jars that are placed in their runs. It is claimed that the ants carry the material to their nests and thus the young are killed. Be that as it may, the number of ants is kept down to a small fraction of the great army that abounds when no poisoning is done.

Three annoyances of sub-tropical countries that are ignored in advertising literature are the ant, the aphid and the snail. The last has a voracious appetite and is kept under control by poisons. It is a most defenseless creature, and poisoning is a low form of warfare, but the snail has no known rights.

For Better Beets

BEETS need good rich soil, well supplied with moisture. The ones that have good growing conditions and come quickly are most tender and flavorful. Any checking of the growth may result in stringiness and a strong taste. Where manure is not used, a 5-10-5 fertilizer at the rate of a pound to thirty square feet is desirable. A light application of commercial fertilizer should be made also.

—N. Y. College of Agriculture.

For the Good of Pennsylvania vote the Davis-Brown Ticket

JAMES J. DAVIS for U. S. Senator

Secretary of Labor under three presidents.

The Great Conciliator in disputes between Labor and Capital.

Friend of Farmers—champion of Community Business Men.

Protected American labor by his strong support of adequate tariff schedules.

Chairman of Federal Board for Vocational Education—making possible persons incapacitated by injury to return to profitable employment.

Has helped in the development of our waterways and is an ardent advocate of good roads everywhere.

Founder of a great school for orphaned children at Mooseheart, Ill.

Established a Home for the Aged at Orange Park, Florida.

A Friend of the masses—Humanitarian Builder.

FRANCIS SHUNK BROWN for Governor

Stands squarely for Referendum on the Wet and Dry Question, so the People of Pennsylvania may individually voice their views.

While Attorney-General drafted and vigorously fought for acts which placed on statute books Employers' Liability and Workmen's Compensation laws—as well as laws regulating Woman Labor and Child Labor.

Opposed to increased taxation, and believes that present burden on people should be reduced wherever possible.

Lifelong advocate of good roads, and stands for increased State aid in the construction of Township highways.

Favors measures for the further protection of the Health and Safety of the employed.

Vice-President of the Board of City Trusts, which controls all moneys and property given the City for philanthropic purposes—helps to administer Girard College for orphan boys.

Holds that Hospitals receiving State aid should treat, without charge, service men, miners and other citizens to whom payment would be a hardship.

Favors an increase in the pay of public school teachers.

The Davis-Brown Ticket is a Ticket of Humanity!

JAMES J. DAVIS
For United States Senator

FRANCIS SHUNK BROWN
For Governor

EDWARD C. SHANNON
For Lieutenant-Governor

PHILIP H. DEWEY
For Secretary of Internal Affairs

GEORGE W. MAXEY
For Justice Supreme Court

WILLIAM B. LINN
For Judge, Superior Court

JAMES B. DREW
For Judge, Superior Court

The Davis-Brown Campaign Committee

Primary Election, Tuesday May 20th

(Paid Advertisement)

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Member Agricultural Publishers' Association,
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Volume 102, No. 20
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APPLES AND POTATOES

EASTERN farmers have not been so much interested in the Federal Farm Board's plans for cotton, grain, livestock and wool marketing as they will be in its plans for marketing potatoes and apples. Representatives of the potato growers met at Washington last week and selected a committee to work out plans. Representatives of the apple growers will meet this week for the same purpose.

ENTRIES CLOSE MAY 31

MANY counties are still unrepresented on the list of progressive farmers whose names have been submitted as candidates for the Master Farmer Awards of 1930. Let us suggest again that you do not leave it to someone else to nominate your choice for the Award. A letter giving his name and address will insure the careful consideration of his standing and achievements by the judges. May 31st has been set as the final date for receiving nominations.

TOO FAR

IN almost every movement somebody goes too far. So it is in the campaign to prevent overproduction in dairying. Some zealous persons have advocated not merely the disposal of unprofitable cows but the sacrifice of good cows and the short feeding of all cows. That is going a long way too far. If dairymen will get rid of their unprofitable cows they won't suffer by surpluses. Efficient herds and proper feeding for economical production are essential to profit any time, and profit isn't going to hurt anybody.

FROM LIFE

A MAN who has become a farm owner after many years as tenant gives us his experience. During his career as tenant he operated several farms. As his term expired in each case he held a public sale of surplus livestock and other things. Every time he was surprised at what he had accumulated during the three or five years of his work on the rented farm. Finally he got enough to buy a good farm and now is a solid citizen of his community. He takes commendable pride in the fact that he left every farm better than he found it. That kind of a tenant is pretty sure to own a farm some day.

LEGUMES AND MALARIA

SCIENTISTS and practical farmers have long vied with each other in extolling the virtues of legumes, since they feed animals and improve the soil. More credit for this

PENNSYLVANIA FARMER

popular plant family now comes from a Russian physician whose observations lead him to believe that the nodule bearers are harbingers of health as well as sources of protein. Noting the prevalence of malaria in most parts of the world and its absence where alfalfa, clover or other legumes are grown he concludes that the malaria-spreading mosquito is rendered harmless by eating a substance found in legumes. If it is possible to divert the attention of mosquitoes from tender hides to succulent legumes the legume tribe will find its host of admirers expanded still more.

AN INSTANCE

IMPORTING countries have reduced their consumption of our wheat by increasing their own production, by measures encouraging the substitution of rye, by increasing extraction of flour and other economies in use, by higher tariffs and possibly by a disposition to buy in a free market. A notable instance is Italy's campaign for home production and its effect on imports. During the first nine months of the current crop year Italy imported only 19,549,945 bushels of wheat. In the same months of the preceding year Italy imported 62,008,970 bushels. The difference is a market influence of no small moment to exporting countries.

CLEAN FAIRS

THE Grange is campaigning for clean fairs in the belief that some of the so-called attractions put on at county fairs are injurious to the morals of the community and distasteful to upright citizens. In one instance the Order is reported ready to boycott a fair in Pennsylvania because its management refuses to "clean up." The Grange's stand in this matter will meet the approval of all persons interested in better fairs, for the farther we get from agriculture in our county fairs the nearer we get to the end of their usefulness and their ultimate disappearance.

OUT OF THE DUST

IT is unfortunate that the recent action of the Chamber of Commerce of the United States should be regarded as a movement of business interests against agriculture, but it is so interpreted. That is a petty view of the case albeit a natural one under the circumstances. The questions which should be asked and determined are worthy of discussion not clouded by class prejudice. They involve the right of Congress to devote public funds to such uses as the stabilization policy requires, the economic soundness of the participation or intervention of government agencies in marketing or other business not properly public enterprises, the commercial feasibility of such action by government agencies even if constitutional, and the ultimate effects of such a policy on agriculture, business and international trade. Let us try to view these problems in the clear light of reason, regardless of the dust kicked up by partisans official, commercial or political.

FOURTH NATIONAL BODY

LAST week representatives of cooperative marketing organizations formed the National Livestock Marketing Association, a corporation to operate under the plan prescribed by the Federal Farm Board. The Association is to have two subsidiary bodies, the National Feeder and Finance Corporation and the National Livestock Publishing Association, the duties of which are indicated by their names. The new national livestock marketing agency starts without the support of two important groups now engaged in cooperative marketing, groups which claim to handle about 50 per cent of the livestock now marketed in this way. Whatever may be said of the Federal Farm Board it cannot be

charged with inactivity, for in a few months it has created national organizations to handle grain, cotton, wool and livestock.

A CHANCE TO LEARN

A READER who fails to sign his letter is quite certain that somebody is getting too much when prices of live-stock and meats are so far apart. He evidently considers the retailer the guilty party. Maybe some retailers are getting too much, but if he wants to join them and get a slice of the profits he can find him plenty of opportunities to do so. Among our comparatively recent educational experiences is the ownership of a retail market, thrust upon us by circumstance. After a couple of years in the only school which fools will learn we haven't picked up much knowledge of profits but have a fine line of information about losses.

TRIUMPH FOR COOPERATION

WHEN the Joint Committee representing equally agriculture and the electric light and power industry was created by mutual action of the leaders of both interests, the cause of rural electrification, Pennsylvania was in a bad way. The farmers raised by the farmers to promote that cause had all been spent without any important results. The companies were not in a very happy mood after facing threats of legislation which they regarded as destructive. Hundreds of complaints were before the Public Service Commission and not much progress could be made in settling them because the determination of any individual case means little more than that, could mean little more than some definite policy and plan of action generally applicable and fair to both interests. The Joint Committee faced a job, one that could not be done by coercion, legislation or in any other way than by cooperation. Realizing this basic fact both interests resolved to endeavor to do it by operation. That policy has been followed with the result that Pennsylvania's progress in rural electrification has attracted national attention; and what is now known as the Pennsylvania plan is being studied and copied in other states.

All this has been no easy task. The members of the Joint Committee should have more credit than they are likely to get for it. For they found obstacles not generally known or understood by those who cannot read the difficulties of so great a work. For the financial extensions is a problem generally realized—they have cost \$16,000,000 so far. The banks which furnish funds for such purposes naturally and properly demand some evidence of return on the investment. That involved initial and later schedules. Costs of extensions were great, involving high initial rates. These have been reduced, after much study and experience, and farmers are allowed to reduce them wherever they are in position to do so. Work cheaper than the companies can do. Rates are coming down as the use of electricity grows, and the big problem now is to expand use as to permit the application of low rates—which are the same in rural as urban territory. A whole battalion of problems confronting the Joint Committee during its years of work have been fairly met, among them hundreds of individual cases which could have been handled in no other way. It is too much to say that a complete solution of all problems has been found, for the problem keeps on coming. But if the spirit of cooperation continues, as it should, and if the committee functions in the future as in the past, the problems will be faced as they appear with every promise of sensible and equitable solution. Pennsylvania's plan is a triumph for the principle of business cooperation between great industries and an example of the principle's advantages over warfare.

May 17, 1930

PENNSYLVANIA FARMER

(701) 7

New Jersey Farm Comment

By G. W. HARRIS

of bees to growers of apples, pears, cherries, peaches, blueberries and cranberries.

There was a time when beekeepers paid fruit growers for the privilege of placing colonies of bees in orchards for the production of honey. Now the tables have turned, growers pay beekeepers to place bees in their orchards for pollination purposes.

Mr. Barclay provides a unique type of service to fruit growers. He must work with the "weather man," must have strong, healthy and active colonies of bees in over 3,000 acres of orchards at the time of bloom of different varieties of apples, cherries, pears and certain varieties of peaches, and must again remove these bees from the orchards before poisonous sprays cause serious losses to his colonies. For this service Mr. Barclay charges the grower ten dollars for each colony.

After listening for a while to an enthusiastic producer of honey this rental system for pollination purposes would seem to be a small gold mine. But such is not the case. Mr. Barclay explained that the moving of the colonies reduced the honey production about 50 per cent and that during many seasons bees used in pollination work do not manufacture enough honey to provide food for the colony during the winter. The primary purpose of Mr. Barclay's bee business is to provide pollinizers for fruit growers, not the production of honey. Most of the 641 colonies are Italian bees, but

Last season the cold blooming season in many sections resulted in poor pollination in many instances because of inactive bees.

* * *

MANY home-owners in the Japanese beetle infested territory during past years have realized too late the damage being done to their lawns by the beetle grub. While most of these owners are now treating their lawns with arsenate of lead for protection, the beetle last year advanced toward new and unsuspecting victims.

The grubs in infested lawns are now approaching the surface and feeding heavily on the grass roots. In order to destroy these grubs the Department of Agriculture recommends application of arsenate of lead in proportion of five pounds to each 1,000 square feet of turf to be covered. The arsenate of lead may be mixed with sand or fertilizer and sifted uniformly over the area to be treated. The lead is very penetrating and quickly enters the soil, generally following the grass roots.

* * *

DURING the past week of extremely dry weather forest fires have been raging in eastern states. Already over 60,000 acres of New Jersey forest has burned and on the Eastern Shore over 50,000 acres of timberland has been consumed by fire. One fire last week covering between 25,000 and 30,000 acres threatened to destroy Georgetown, the county seat of Sussex, Delaware.

* * *

THE simple expedient of observing new spacing rules in planting tomatoes, cucumbers and cantaloupes will enable vegetable growers to obtain larger yields with less labor, says C. H. Nissley, New Jersey extension horticulturist in vegetable growing.

For years, he points out, tomatoes have been spaced at distances of four feet each way to allow the growing of 2,722 plants to the acre. Such spacing has been favored because it facilitated cultivating both ways.

"The better distance for planting tomatoes," Nissley advises, "is three by five feet. This spacing allows the setting of 2,905 plants to the acre, 182 more than the older planting rule. Furthermore, the extra foot between the rows gives more room for spraying, and for harvesting the crop.

"In south Jersey cucumbers and cantaloupes are usually planted in hills four by five feet or five by five feet apart. These plantings require hand labor to apply fertilizer, especially if it is placed in the hills. The more economical method of planting is in rows six feet apart with the plants thinned from 12 to 15 inches apart in the row. The advantage in row planting is that the fertilizer can be applied with a horse drill. Side dressings also may be made with labor-saving equipment, and hand labor can be reduced to a minimum.

DR. LEON A. HAUSMAN, head of the zoology department, New Jersey College of Women, has been appointed consulting ornithologist for the New Jersey Agricultural Experiment Station, according to the announcement of Dr. J. G. Lipman, Experiment Station director.

As consulting ornithologist for the Experiment Station, Dr. Hausman will prepare a number of publications on bird life in New Jersey. He is the author of two Experiment Station bulletins, "The Hawks of New Jersey," and "Woodpeckers, Nuthatches, and Creepers of New Jersey," thousands of copies of which have been distributed to residents of the state.

* * *

POUULTYMEN in Sussex county, Delaware, complain that several gangs of thicken thieves have been operating in the county. Poultry production is fast becoming the principal industry of Sussex and the losses are being taken to heart.

Your Opportunity to See America

Pennsylvania Farmer's Tour Through
18 States and Two Provinces of
Canada.



WHAT—A Pacific Coast—Yellowstone Park tour sponsored by Pennsylvania Farmer in cooperation with several railroads. West through the northern states and southern Canada, returning by the central states.

WHY—Because, by managing the tour as a reader service, Pennsylvania Farmer can offer a more attractive trip at very much lower cost than any individual could obtain for himself. Also because of requests for another tour from enthusiastic members of the Florida-Cuba Tour managed by Pennsylvania Farmer last winter.

WHO—You and your family and friends, we and ours—anyone who wants to know more about the Great Plains, the awe-inspiring Rocky Mountains, the proud Pacific coast cities, the magnificent distances of this great land of ours. The tour party will be in personal charge of one of the editors of Pennsylvania Farmer and several railroad officials.

HOW—By chartered Pullman cars and special train with our own dining and observation cars, and with automobiles for numerous side trips. It is to be an all-expense tour. You make one payment before you start. Then you can leave your pocketbook at home. Meals, side trips, tips, berth and every other necessary expense are covered in the first cost.

WHEN—Leave home Saturday, July 26th; return sixteen days later, Sunday, August 10th.

Mail the Coupon below for Full Information, Schedule and Cost

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Sweet Clover and Jerseys at Maple Dale Farm

By H. C. BARKER, Dairy Specialist,
University of Maryland.

FOR the last six years John Bay, Harford county, Md., has been supplementing his eight acres of permanent bluegrass pasture with sweet clover. Thirteen acres of such pasture carry his 25 milking cows through the summer. He has a twelve-acre piece of ground near his permanent pasture on which he maintains a two-year rotation of wheat or barley and sweet clover. A fence divides the piece into two six-acre fields, and one of them is sown to sweet clover each spring. The other six acres, sown to sweet clover the previous year, are used for early pasture. Mr. Bay turns his 25 cows on this six acres of sweet clover about the first to the 15th of May, and it carries them until about the middle of August.

The sweet clover is sown with barley or wheat and fifteen pounds of seed to the acre are used with an additional seed mixture of five pounds timothy, five pounds alsike and five pounds of red clover. "By using a mixture of this kind," says Mr. Bay, "I always get a good stand, and when the barley or wheat is removed at harvest time, the new seeding is soon ready to turn on to."

There are ninety acres in the Bay farm, sixty-five of which are tillable. Twenty-five head of milking cows and fifteen head of young stuff are kept. Mr. Bay's bluegrass pasture is considerably better than the ordinary run of pasture. His permanent pastures are top-dressed with manure every winter and limed about every fourth year. Speaking of sweet clover pasture Mr. Bay says, "I get more feed per acre from sweet clover pasture than any other crop that I grow on the farm. The dry weather does not seem to affect it."

Sweet Clover Provided Dry Weather Pasture

"I still can shout for sweet clover," says Mr. Bay, "even after such a dry season as 1929. On the 15th of May I turned my 25 cows on the six acres of sweet clover. This proved to be a little late, as the clover had made such a start that about two-and-a-half acres were hardly touched. On June 5th I ran the mower, with the cutter-bar set high, over this part of the sweet clover, cutting off the tops. This cutting induced the plants to put out new shoots, which proved a very good idea. My acreage of permanent pasture is very small, compared with the number of cows that I run on it. This pasture was very hard hit by the dry weather last season, yet my cows made out very well until after harvest."

"From the six acres of wheat sown with the sweet clover last year, I harvested thirty-three bushels of wheat per acre. As the season was unusually dry the clover was very small and I did not turn the cattle on it until August 15th. I believe I got as much pasture from it as in previous years, although it was small and the cows perhaps had to work harder to get it. My cows kept in fine condition and while I was not in the cow-testing association last year, my gross income from my herd was as good as it has been other years."

For several years Mr. Bay has been a member of the Harford County Cow-Testing Association. In 1927-28 his herd of 25 cows averaged well over 325 pounds of butterfat per cow. His grade cow "Brindle" was high cow in 1927, with 526 pounds of fat, and fourth in 1928 with 9,347 pounds of milk and 501.7 pounds of fat. She made a profit over feed cost of \$219.18. In 1928 the average "profit over feed cost" per cow was \$186.85. Only three other herds in the association were higher. He had one cow with over 500 pounds of fat, two with over 400 pounds of fat, and three two-year-old heifers that produced from 336.4 pounds to 356.7 pounds of fat for the year.

Mr. Bay is an enthusiastic Jersey breeder. He still has a few good grades, but most of his herd are registered Jerseys. The first pure-bred came to Maple Dale Farm, for that is the name of Mr. Bay's farm, in 1913. This was a registered Jersey bull from the farm of a prominent Harford county Jersey breeder. In 1927 a registered heifer was bought and later four more pure-bred Jerseys were added to the herd. No females have been bought since.

In 1923 six cows were put on Register of Merit test. Mr. Bay cared for these cows himself during the whole year, except one week when he was ill. Five of the six cows finished records with over 600 pounds of fat. One won a gold medal, one a silver medal and two won state championships. The sixth one was a two-year-old that made 399 pounds of fat in ten months.

Good bulls have always been used. Sid Sultan, a good son of Zenia's Sultan, was used for some time and left 21 fine daughters at Maple Dale Farm. Fairplay's Prince 233844, the present herd sire, is a son of Fairplay's Princess with 900 pounds of fat.

The cows have made Maple Dale Farm very productive. Last year from 16 acres of clover meadow 60 tons of clover hay were cut. Wheat is generally top-dressed with about 200 pounds per acre of a complete fertilizer, usually a 2-12-4 or manure, and yields 30 to 33 bushels per acre.

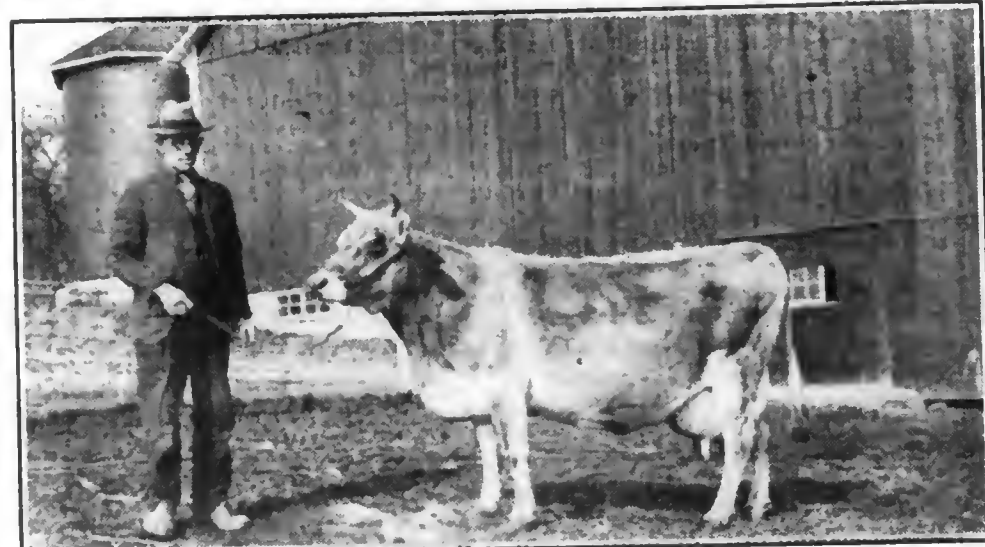
"If you want to get milk out of cows you must feed them," Mr. Bay told me when I asked him if he grazed his cows in summer. In spite of the good pasture the cows get one pound of grain to four and one-half to five pounds of milk. Most of the time he feeds a home ration, supplemented with 32 per cent feed. His grain mixture is 400 pounds of corn and cob, 300 pounds ground oats, 300 pounds bran, 500 pounds 32 per cent feed.

Two well-filled silos assisted by an abundance of clover hay of the right sort, furnish the winter roughage. Too often many of our good dairymen have been unable to get away from their old friend "timothy."

"You know," says Mr. Bay, "That timothy is no good for pasture and it is no good for hay, therefore, on a dairy farm it has no place."

The Marginal Farmer

THE newest and greatest danger to agriculture is the marginal farmer, a recently discovered but so far unclassified pest. Farmers have troubles enough, goodness knows. What with the



Mr. Bay holding his gold medal cow and former state champion Prozle's Tormentress

bean beetle, boll weevil, corn borer, fruit fly, army worms, Japanese beetles, grasshoppers, politicians, short skirts, and the like, the poor, deluded farmer has already had more than his share of woe.

And now the scientific sharps must go and dig up another menace!

When I first saw the term "marginal farmer" I was more than a little puzzled, and a whole lot scared. I had heard of lazy farmers, truck farmers, one-gallop farmers, skunk farmers, and a host of other kinds of farmers. But nary a marginal farmer.

I have heard farmers and their ways cursed and discussed from all possible angles. I have heard them called names that would scorch the bark off a tree and melt type metal. But like the profane old fish wife whom Charles Parnell rebuked by calling her a parallelopipedon, I had never been called such a vile name before.

So, in the interest of exact and scientific knowl-

edge, I beat it to the dictionary. I skimmed around awhile among the F's and M's, but this new menace was absent or not voting. I found "farmer" and I found "marginal," but I couldn't locate chapter or verse where the two had been joined together in the bonds of unholy matrimony, or worse. Finally, in desperation, I turned to the pictures in the back. But like Mark Twain I failed to free this conjugal anomaly even among the pictures.

Then I went back, and again read the accounts of the unearthing of the marginal farmer. I hoped in this way to learn what it all meant. I wanted to know, too, if we hayseeds had been insulted, I did, we were, and we are. I learned all this, and a lot more. Roy Chapman Andrews' story of his explorations in Mongolia has nothing on the marvelous tale of the finding of the marginal farmer. For breathless interest, red-blooded romance and unparalleled intrepidity, the discovery of the marginal farmer stands alone, unexampled and unsurpassed in the annals of science.

Details Announced Later

Being a little dull of understanding, like many other farmers, and slow to grasp printed matter unless it is in large type and words of one syllable, it took me some time to dig out the meaning of the term "marginal farmer." But I got it at last; and for the benefit of my fellow sufferers I am going to pass it along without charge.

It seems, as near as I can make it out, that marginal farmer is one whose income is too small to properly equip himself and family with an adequate supply of radios, silk socks, bath tubs, machine washers, eight cylinder cars, corn remedies, electric refrigerators and the other essentials of happiness. In other words, the marginal farmer is one whose acreage is too small or too worthless to make him a good customer for even a shoe-string peddler.

The absence of a radio seems to be the one sure sign of the outcast marginal farmer. That, or rather the lack of it, is what makes him a scorn and a hissing among all good men and true. Even hayseed in a six-week growth of whiskers is not so certain an indication of his depravity.

It is a gloomy situation; and only one feeble ray of light—it seems to me—that I have heard that phrase before—illuminates the Stygian darkness which encompasses the awful profundity of the subject: the eminent scientists who first uncovered this horrible menace have already worked out the treatment for it. Their plan is not patented, either; and I am free to reveal it: they are going to make the marginal farmer prosperous, and a good customer for everything from yo-yo's to airplanes.

And here's how they are going to do it. No halfway measures for the scientific mind. No indecency! If they cannot make the old M. F. over completely, from old chip hat to cowhide boots, with a close shave four times a week, they will have no further appeal to them. All or nothing is their motto! So—and here's the secret—they are going to move him off his worthless acreage and put him on land where he can make at least a net \$1,200 a year, and his eating tobacco!

So far, so good. Nothing is said as to how the M. F. is to be pried loose from his broomstick and sassafras plantation. Nor is anything said as to where the fertile, productive acreage is to be found. Nor who is to find it, and move the M. F. onto it. Nor how the present owner is to be separated from it, and why. These details will, doubt be worked out later—much later.

Charles H. Washburn



A view of Mr. Bay's homestead.

Milly Woodbridge's Trek to the Pacific

The Pioneers of the Peace River Valley

By C. A. Stephens

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SYNOPSIS

Two New England families, who have gone to the Peace River country in Canada to make homes, find themselves in unfortunate circumstances when the railroad, on which they had based their hopes, is not built near where they have settled. One of the families, the Mastermans, moves away, but the other, the Woodbridges, remains in the vain hope that something will happen to create business for the sawmill they have built. The son and daughter advise following the Mastermans' example and go back to civilization while they still have enough money to make the journey, but the father refuses to leave his mill. At last, when it became evident that they could not live through another winter on the Peace river, and after their money had been spent, they started to walk across the thousand miles of wilderness, and mountains that stretched between them and the Pacific Coast. With a horse, a cow and later an Indian woman who joins them they cross rivers and forests in slow but determined fashion, living largely on game and fish. The extreme exertion together with wet weather seem to make the father's cough worse until one day he has a hemorrhage of the lungs, losing considerable blood before it stops.

HERETOFORE Mr. Woodbridge's two children had not supposed his ailment serious; now they were but too certain that he was suffering from tuberculosis and that the disease was already far advanced. Something akin to panic fell on Milly. She reproached herself for inducing him to set off on so arduous a journey. As for Freeman Woodbridge, himself, all his remaining courage now left him. "I shall never see Prince Rupert!" he exclaimed despairingly. "This is my last journey. I shall die here among these dismal mountains."

"Would you like to go back to our place on the creek, father?" Milly asked him. "We will go back if you say so. Do you want to?"

"Oh, but we have come a dreadful long way," he replied. "I never could foot it all that long way back! I want to rest. Let me rest."

The July weather was far from cold; but he shivered as if chilly. Milly covered him warmly with two blankets and presently he fell asleep.

They did not move camp next day, nor the day following. Beaver abound on many small streams that enter the Finlay. On the second day they were there. Winthrop shot two young ones, which the squaw cooked after the Indian fashion for their dinner. They found the flesh very good eating. The elder Woodbridge had now so far recovered as to partake quite heartily of this new fare. Next morning he was visibly much improved. Better still, his courage had returned. They had not seen him in such good spirits since starting. He laughed and even joked at breakfast. "Let's be off from here," he exclaimed. "No good staying here. I'm all right." When again Milly asked him if he wished to return, he cried, "Not a bit of it! Prince Rupert, or bust!"

"I mean to start a mill there," he went on to say. "It's a growing young town. There's sure to be a great call for lumber."

They went on, much encouraged, Woodbridge, senior, leading the way with Winthrop and assisting him to clear the trail. That day they had to cross several small streams that enter the Finlay from the north. These they were able to ford at points where shallows favored a passage. In order not to expose the elder Woodbridge to danger of further colds from wet feet they first led the horse across, then having removed the packs, took the animal back for their father to ride through the stream. Although now the 9th of July, the water of these mountain creeks was cold from the snows at their sources. In nearly all of them, however, they were able to catch trout in abundance. Time and again, too, Pinky-Blue led the way to beaver dams and ponds at no great distance from the trail, where by watching awhile Winthrop succeeded in shooting one, sometimes two, of these industrious rodents.

In many other ways also they found the squaw an efficient helper. A day or two later, however, they lost her under rather queer circumstances. They had camped for the night on a little hillock near the Finlay and, while cooking their supper, were joined by an Indian who was descending the river in a canoe. Noticing their smoke he came ashore, and seeing the squaw with them, grunted a salutation, then sat down on a stone hard by. Evidently he was waiting an invitation to share their food; and when it was prepared, Milly signified to Pinky to offer him a platterful of such as they had also a dipperful of milk, which latter, however, he rejected with a gesture of disgust.

WHETHER this Indian had previously known Pinky did not appear. They seemed not to converse together, nor indeed to pay much attention to each other; none, in fact, that the Woodbridges noticed. The fellow was of unprepossessing countenance and appeared of a sullen disposition.

He lingered about and came to their camp early next morning to be fed again. After they had given him food, he rose as if to leave, but when a few steps away, turned and beckoned to the squaw. Without explanation or a word of farewell to her white friends, the faithless Pinky got up and followed him down to his canoe. Then, to their astonishment and much to Milly's regret—they saw the pair paddling away down the river. It had been a very laconic wooing—but successful!

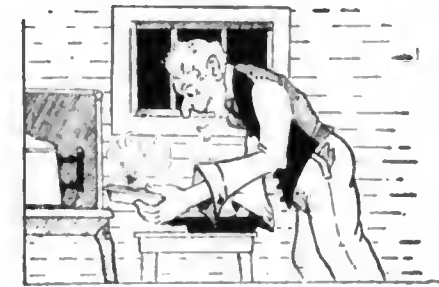
"Well, that's the last we shall see of Pinky, I guess," Winthrop said, and so they supposed; but the sequel had yet to come.

Three days afterwards, while they were camping at the foot of a long rapid on the Finlay, Pinky-Blue came back to them—sometime during the small hours of the night. On emerging from the

tent the following morning, Milly espied her sitting huddled in her blanket, on the ground near the tree where old Peregrinations was tied. Her face was down in her hands again; and as before, she was the abject picture of desolation.

Milly's attempts to find out what had happened to her elicited but little information. The poor creature was woefully depressed—worse than before. Milly gained the idea that Pinky's new lord and master had failed to appreciate her, and had given her a beating—the upshot of which was that she had fled from him, taken the trail and come back to them.

As they were going on, the following morning, they were overtaken by two miners carrying packs, who had come up the Parnip River from Queen's in British Columbia, on their way to the Germansen gold mines. One of them was an elderly man, the other quite young, apparently not



The Cheerful Plowman

FARMERS AND COOKING

A FARMER should know how to cook without a boss, without a book, without a hitch of any kind, without a tremor of the mind. The wives of farmers, be it known, have kinks and troubles of their own. They have their social duties too, they must keep up with who-is-who, so there must come at times a day when they are ill or gone away.

I have an uncle, poor old skate, so helpless and so out of date, that when his wife is gone or ill he never gets a decent fill; he has to munch at crusts and beans and chew at old and mouldy greens. He could not make a bowl of soup to save himself from death or croup; he could not fry a piece of steak to save himself from chill and quicke. He's just as helpless as a child, and that is really speaking mild. If his wife should be gone a year he'd starve beside the stove, I fear.

Not so with me, I'll tell you those, for as a cook I often pose. When my wife wants to go away to some pert circle for a day, or wishes to take off a week and visit down at Potter's creek, I do not want her while away to worry for my sake, I say. I do not want her to be sad because my bill-of-fare is bad. I want her not to spoil her fun by thinking I am all undone. I want my wife when she is gone to have her finest graces on; I want her then to get a rest and not by breads to be possessed.

And more than that, when she returns to view her dishes and her urns, her kitchenware and frying pans which she left bright as nickel cans, I want her then to find them all as sleek and shining as the wall. I want her to come back and find her husband in his normal mind, as fat and dapper as a seal, the house all groomed from head to heel.

You bet this farmer here can cook without a note, without a book; his wife can go and come at will and find him neither starved nor ill. J. E. T.

more than eighteen or nineteen years old. These wayfarers continued with them throughout the day, bought milk and cream and camped near them that night. It was noticed that the younger one seemed attracted to Milly, though he appeared too bashful to say much. They were traveling faster than the Woodbridges and next morning shouldered their packs and went on. Presently, too, our friends made a start and had been on their way a few minutes, when they met the younger miner coming back to them, this time without his pack.

After joining them he walked beside Milly for a little way, then told her his name—Luther Martin—and asked hers. "My uncle and I have a good claim at Germansen," he went on to say. "I took out fifty ounces last season and this year I shall take out a hundred. If you will tell me where you are going, I'd like to come and see you"—and his eyes said much more!

Not to make a secret of their destination, Milly informed him that they were journeying to Prince Rupert. "But I am afraid it would be of no use for you to visit us," she added gravely.

The young fellow seemed disappointed and ere long went on without further conversation. Pinky who was a step behind, leading old Peregrinations, watched Milly with great interest all the rest of the day. It was some time, too, before Milly heard the last of young Luther Martin, from her brother Winthrop. "That was a pretty nice young fellow, Milly," he was wont to say teasingly. "You may not do better. Quin Masterman may have found another girl at Prince Rupert by this time. Shrewd girls, like good generals, always have a reserve handy!" To all of which badinage Milly paid but the slightest attention.

The next day, or the next but one, they reached the confluence of the Finlay with the Omineca, the latter a large and rapid river that enters the Finlay from the south; and as the trail henceforward was along the west bank of the Omineca, they had the Finlay to cross—a somewhat formidable undertaking.

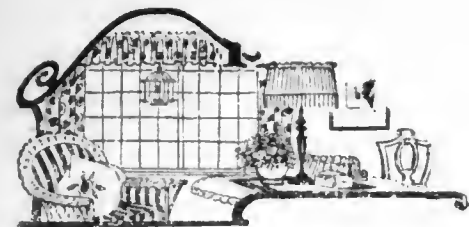
Two days were occupied constructing a raft, for which dry logs were collected from ricks of driftwood along the river bank. For safety's sake two layers or platforms of the logs were laid one above the other, crosswise, and the structure held together by poles and ten spike nails, which Freeman Woodbridge had bethought himself to put in their outfit in case they might be needed for this purpose. The raft was made fifteen feet in length by ten in width, since it was necessary to ferry the Jersey across on it. The old horse, they found, would enter the water and could be led to swim behind the raft. Brighteyes, however, could not be induced to do so, and indeed they had difficulty in coaxing her to set foot on the raft.

At a short distance above the junction of the two rivers, the current of the Finlay is sluggish. They had laid their raft hereabouts, and by using long poles were able to cross and recross several times without serious difficulty or danger. Afterwards they knocked the spikes out of the logs and took them along for use again, if wanted. At the place where they crossed, the Finlay, they told me, was about seven hundred feet wide and so deep that in mid-channel the bottom could hardly be touched with poles fourteen feet long. For several days the trail along the Omineca proved more passable than the one they had followed by the Finlay. They made fourteen or fifteen miles daily, and on the fourth day reached the foot of what is known as the Black Canon, where the river comes down an impassable gorge.

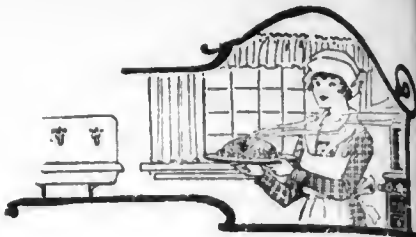
THE trail round this chasm diverges for a considerable distance following about the base of a wooded mountain on the north side of the gorge. An entire day was spent exploring this detour in advance; and during the afternoon while Winthrop and his father were away doing so, the squaw and Milly had an alarming adventure.

Pinky had gone fishing in the pool below the craggy black gateway of the canon a short distance from their camp, while Milly was improving the leisure day to mend their clothes. As the squaw fished, she went slowly along the river bank and came at length where a projecting rock had to be climbed. Scrambling to the top of it, she was disagreeably surprised to find herself close upon a large gray bear with a cub, both greedily feeding from the carcass of a moose, which the mother bear or a passing hunter had killed. They were just the other side of the rock, not ten feet away. The roar of the water had prevented Pinky from hearing them, or they her.

(To be continued.)



The Farm Home



Clothes for the Boy

CLOTHES influence the character and happiness of children. Qualities of character that are very definitely affected by their clothing are self-reliance and independence. At a very early age—less than three years—a child can learn to dress and undress without help,—provided all his clothes are designed with this aim in view. A little patience will soon teach a small boy just how his trousers should be buttoned on the waist, if the fastenings are as simple as possible and placed where he can reach them. Besides developing independence, the ability to dress himself will save a great deal of time for the mother.

Many people believe that boys care little about their appearance, and point to their apparent indifference when they are playing actively in soiled or torn garments. If they were given suitable play-suits, however, they would not look so disreputable, and they would be equally happy in, and unconscious of, their clothing while at play. Being dressed for play, in any case, is quite a different matter from being dressed for appearance before other people—to go to school, for example, or to be taken to somebody's house. A queer or ill-fitting suit or one of an ugly color will make a little boy just as uncomfortable as his little sister would be under similar circumstances.

Children's Taste Is Reliable

Boys' clothes should be smartly masculine in cut and well tailored, but they may have plenty of color, according to what the child likes and what is becoming. Some children are very sensitive to colors, and this should never be ignored or ridiculed. Their likes and dislikes should be considered as far as possible. Usually children's taste in color is reliable, although a trifle primitive. With a little guidance in choice, they may receive much happiness from the color of their clothes, and at the same time develop good taste.

The suit illustrated was designed by a specialist of the Bureau of Home Economics of the U. S. Department of Agriculture, and is one of the very first the little boy will wear. The trousers are as simple and straight as possible and are carefully cut. The back seam is longer than the front, and gradually slants from the top to the crotch. This provides room for sitting. There is a front drop which is independent of the side placket. The little blouse has a collar trimming stitched flat, matching the trousers and cuffs in color. There is enough variation in the line of the bound front closing to make it interesting. To give room for activity in a blouse with long sleeves the waist must be a little loose through the body and under the arms. This extra width is slightly confined at the hips by buttons and loops so that it does not hang outward in front.

Happy the Modern Mother

TODAY the intelligent mother knows and profits by the information given her by the patient scientist regarding the health of her little one. She no longer swaddles her tiny tot away from the health-giving rays of the sun, but dresses him in the lightest of porous garments or perhaps no garment at all, and lets him kick delightedly for a while every day in the warm open sunshine. She helps prevent the dreaded bone disease of rickets by giving him cod-liver oil, and the little fellow learns to smack his lips over it.

She begins early to feed him diluted orange and tomato and cabbage juice to prevent scurvy. She feeds strained vegetables when he is several months old. She knows that she must sterilize the utensils in which she prepares the baby's food, must keep his bottles surgically clean and his milk cold until it is warmed for him, to help prevent dysentery and other ills. She may learn from her doctor how to regulate the richness of his milk to agree with him perfectly and prevent colic. She need never know the fatigue and strain of walking the floor night after endless night with a peevish baby. She realizes that perfect regulation of diet, schedule, bowels and sleeping hours all help to make her baby a happy, independent, strong little fellow.

Nor have the business men and manufacturers been slow to learn of the new needs of a mother and provide for them. She can buy many things to help her busy days with baby. There are the little seats which fit over any chair or car seat, so that mother and the baby may go out for a drive in the car all by themselves whenever they



Good Type of First Suit for the Small Boy.

wish. There are the strained vegetables and soups which come all ready prepared for baby's use. They save mother many hours of work, or are a boon when baby and mother are away from home, where it is difficult to cook and strain so carefully. She can buy little sun suits of soft net. And she can buy aluminum ventilated mittens to put on baby's hand as he goes to sleep, to prevent that little thumb from snuggling into his mouth.

Be glad you are a modern mother!
Marion Cossitt Brackin.

The Summer Fireplace

NOW that the winter is past and the hearthfire is dying what shall be done with the fireplace? An empty grate is desolate and cheerless. The old idea of sealing the grate with stiff paper or a board cut to fit the fireplace protected the carpet from showers of storm-blown soot but the arrangement reminds one of the proverbial bushel measure turned over a candle. The grate may be screened but there are objections here, too.

One spring evening after the house had been thoroughly cleaned and the fireplace barricaded with a piece of heavy furniture, the good man of a well-ordered home remarked as he sat down to read his paper, "Somehow it doesn't seem like home with the fireplace closed."

The hearth is the center of the home and should be made attractive in summer months instead of concealed as an unsightly thing. A whisk broom will free the back and sidewalls of loose soot; then every particle of ashes should be removed. (Wood ashes are splendid for the garden.) Soap-suds, ammonia and a stiff brush will clear the hearth and the face of the mantel, if it is brick.

Now throw into the grate a handful of wood shavings and a few splinters of kindling; then heap on a few slender birch or beech logs. If these light-colored woods are not available, any kind of split logs will make a pleasing contrast to the dark background.

Such a hearth is pleasant to look at and adds charm to a room. If on a cool evening a match is set to the shavings, chill and dampness will soon be replaced by warmth and cheer.

Marguerite Steele McCreary.

Setting Examples

ROSE-MARIE always came to school looking as clean and sweet as a fresh little rose. Her hair was well taken care of, her hands and nails in perfect condition, her little dresses free from spots and her shoes carefully polished.

One day, when she had remained after school to help me and had carefully washed her hands and brushed her dress before putting on her coat, I said, "Rose-Marie, I've watched you from the time you started to school—a bit of a fluffy baby in the first grade, and I've never seen you when you weren't as neat and immaculate as it is possible for a little girl to be."

Rose-Marie smiled, pleased with her teacher's praise. "Mother always looks nice and so does Daddy," she answered simply.

A few days later I had a chat with Rose-Marie's mother, repeating what her little daughter had said.

"My deeds have borne fruit," responded the mother with a happy chuckle. "You see, Miss Dorothea, I've always loved a clean, sweet little girl, and as I didn't want to preach and nag, Daddy and I have tried to set the right example. Children are very observant and quick to emulate those they love and admire. Oh, it hasn't always been easy,"—the mother seemed to be reading my thoughts. "It's such a temptation to let down. After a particularly strenuous day's work I often think, 'If only I could stay the way I am and dress.'"

Duty to the Others

"Yes, I know," I agreed, thinking of my often tired self after a difficult day at school.

"And then I'll say to myself," she continued, "No, I owe it to Daddy and Rose-Marie to bathe, comb my hair and slip into a fresh house dress. And it really is refreshing mentally, as well as physically, you know, Miss Dorothea."

"That's very true," I answered, "and I'm so grateful to you for telling me all this. I never realized before how much a parent's or a teacher's appearance means to a child."

"Yes," she replied, "we can't help being examples for our boys and girls. It's surprising what little 'copy-cats' children are. Rose-Marie often speaks of you. She notices your hair, your teeth and even the way you carry yourself. 'I want to look like Miss Dorothea, today,' she sometimes tells me. Another time, with a hug for me, she'll say, 'I want to look like my mother!'"

I went home that evening a very thoughtful "school marm," determined that I would remember that I was teaching not only "reading, writing and arithmetic," but many other things as well.

And a parent's influence? Well, its duration is exactly twenty-four hours long every day of the year—and year after year.—Helen Gregg Green.

Plant Salsify

WE belong to the number who must count every penny. We love oyster soup, but can not afford to buy oysters. For ten cents we can buy a pack of salsify seed, for a little work raise a nice long row in the garden, and as soon as we can get any plants out of the ground have the most delicious oyster soup imaginable. Scrape off the thin skin and hair-like roots, cut in slices, boil in salted water until tender, add milk, according to the size of your family, a chunk of butter, and eat with crackers. If you do not have it, do plant some this spring.

Florence C. Hebel.

A child should have at least two hours of outdoor sunshine daily, or its equivalent in cod-liver oil.

In the selection of a new rug, durability is one of the first factors to be considered.

Do not store articles of fur, woolen, feather, which you know will never be used.

Cheese is an excellent meat substitute because it is rich in protein and fat and contains calcium phosphorus and vitamin A.

Instead of discarding the large leaves of lettuce, wash them carefully, trim off the brown sections, shred with shears, and use as a garnish or as the salad foundation.



For Brother and Sister Also

No. 6409.—Ladies' apron frock. Cut in four sizes: small, 34-36; medium, 36-40; large, 40-44; extra large, 44-48 inches bust measure. A medium size requires 3½ yards of 35-inch material. Price 15c or two for 25c.

No. 6511-6463.—Jacket ensemble for girls. Cut in six sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. A 38-inch size requires 2½ yards of material 39 inches wide. Dress 6463 cut in six sizes: 34, 36, 38, 40 and 44 inches bust measure. A 38-inch size requires 4½ yards of 39-inch material. Price 15c or two for 25c.

No. 6497.—Girls' dress. Cut in four sizes: 10, 12 and 14 years. To make the dress with the blouse of one material will require 4 yards 35 inches wide for a 12-year size. The dress alone 2 yards will be required. For the blouse alone 1½ yards will be required. Price 15c or two for 25c.

No. 6630.—Misses' dress. Cut in three sizes: 16, 18 and 20 years. A 16-year size requires 3½ yards of material 35 inches wide. Price 15c or two for 25c.

No. 6072.—Boys' suit. Cut in four sizes: 8, 10 and 12 years. A 6-year size requires 3½ yards of material for the blouse and 1½ yards of material for the trousers. Price 15c or two for 25c.

No. 6631.—Misses' dress. Cut in three sizes: 16, 18 and 20 years. A 16-year size requires 3½ yards of 35-inch material. Price 15c or two for 25c.

No. 6046.—Girls' dress. Cut in five sizes: 4, 6, 8 and 10 years. A 6-year size requires 1½ yards of 35-inch material. To make with bias binding requires 2½ yards

1½ inches wide. Price 15c or two for 25c.

No. 6589.—Girls' dress. Cut in four sizes: 2, 4, 6 and 8 years. A 4-year size requires 2 yards of 32-inch material. To trim with rosettes and lace edging will require 18½ yards. Price 15c or two for 25c.

No. 6730.—Girls' undergarments. Cut in six sizes: 4, 6, 8, 10, 12 and 14 years. An 8-year size in one material, (undershirt and bloomers) requires 1½ yards of 35-inch material. The shoulder straps of ribbon require ½ yard. Price 15c or two for 25c.

No. 6269-6067.—Coat ensemble for girls. Coat 6269 and dress 6067 are both cut in four sizes: 2, 4, 6 and 8 years. To make the ensemble for a 6-year size will require 4½ yards of figured material, and 2½ yards of plain material 36 inches wide. Two separate patterns 15c for each pattern or two for 25c.

No. 6493.—Ladies' apron frock. Cut in four sizes: small, 34-36; medium, 36-40; large, 40-44; extra large, 44-48 inches bust measure. A medium size requires 3½ yards of 35-inch material. Price 15c or two for 25c.

No. 6227.—Ladies' slip. Cut in four sizes: small, 34-36; medium, 36-40; large, 40-44; extra large, 44-48 inches bust measure. A medium size requires 2½ yards of material 36 inches wide or wider. Price 15c or two for 25c.

HOW TO ORDER

All patterns 15c each, two for 25c. Be sure to give number and size. Address Pattern Department, Pennsylvania Farmer, 7301 Penn. Ave., Pittsburgh, Pa.

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It keeps you informed, advises you of new things, suggests new uses for articles you already own, and prepares you today for wise and useful purchases tomorrow.

The Cattle and Hogs were Saved

A Bell System Advertisement

THE STRAW-STACK in the barnyard of a farmer living near Austin, Minn., fell over one morning and buried four valuable cows and several hogs. Calling his neighbors who had telephones, the farmer asked them to come at once to help save his endangered livestock. The neighbors began arriving with their pitchforks within a few minutes, and their combined efforts succeeded in digging out the cows and hogs without the loss of one.

A farmer living near Oconomowoc, Wis., one night noticed a car loaded with chickens in crates, standing along the road. Suspicious of thieves, he quickly drove to his home and telephoned his neighbors and the sheriff. The gathered farmers and deputies succeeded in capturing the thieves, and their arrest led to the breaking up of an organized gang of chicken thieves that had been preying on the surrounding country.

The telephone summons immediately aid to save lives and property, runs errands to town or about the countryside, and frequently pays for itself many times over by finding when and where to buy or sell.

The modern farm home has a telephone that serves well, rain or shine.



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WHEN YOU BUY DIP

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ARE MORE IMPORTANT
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First—How strong is it? How does it compare with carbolic acid?

Second—Is it standardized? That is, will it run uniform, or does it vary in strength?

Third—What kind of emulsion does it make? Milky white? Free from any specks or oily streaks on the top, and free from settlings at the bottom? A poor emulsion not only denotes an inferior dip, but a waste to you.

Dr. Hess Dip and Disinfectant
IS FIVE TIMES AS STRONG
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It has a carbolic acid co-efficient of 5. That's why Dr. Hess Dip

Dr. Hess & Clark, Inc., Ashland, Ohio

costs less to use, no matter what price you pay for others. It requires less of it to make an emulsion.

Dr. Hess Dip is standardized, always the same, whether you buy it in Maine or Texas, the same yesterday, today and tomorrow.

Dr. Hess Dip makes the finest, whitest, milky emulsion of any dip that you can buy, and stays that way for weeks. The whiteness proves its worth.

Have your dealer place a teaspoonful in a glass of water—and see for yourself how much better it is.

Dr. Hess Dip and Disinfectant kills hog lice, sheep ticks and scab; destroys disease germs; keeps down foul odors; makes living quarters healthful.

Guaranteed.

The Story of Woodbine Farm

By W. D. ZINN

(Continued from last week.)

CHAPTER XV

IN the days when I was shipping livestock I was also buying all kinds of livestock and selling it to local butchers. Hogs were bought to be dressed and delivered to the railroad and I shipped them hither and thither.

One day in February I was in the city of Elkins and met a butcher whom I will call Smith. He said to me: "I want and must have three dressed hogs tomorrow. Can you furnish them?" I told him I had the hogs bought but I did not think I could get them killed, dressed and shipped on the next day.

About that time I saw approaching us a farmer of whom I had purchased some hogs to be killed when I wanted them. When Mr. Howell came up I told him what Mr. Smith wanted and asked him if he could deliver the hogs to Mr. Smith the next day. Mr. Howell lived several miles from the city of Elkins. The hogs had to be shipped by rail.

He said he could do it, but turning to Mr. Smith he said: "The hogs will not come in good condition, because they will not have time to cool and dry out before being shipped." To this statement Mr. Smith replied, "You need not be disturbed about that. Ship me the hogs."

Hogs Returned

Mr. Howell and I returned home on the same train that evening. When he left the train I said to him: "By all means do not fail to deliver the hogs to Belington in the morning in time for the up-train." Mr. Howell was one of those thorough-going, hustling farmers who never saw a task so hard that he would not undertake to perform it. Although he had six miles to haul the hogs after he had dressed them and had to have them at the station by ten o'clock, he was equal to the occasion.

By some hook or crook the agent failed to notify Mr. Smith the next day that the hogs had arrived and they lay at the station until the second day in the evening when Mr. Smith took them to his shop. The weather was very cold when Mr. Smith saw me on Monday and bought the hogs. Two days, however, had seen the temperature rise many degrees and Thursday was a spring day. The hogs lay on the floor in the shop until Thursday evening and Mr. Smith shipped them back to me by express.

I had been called to a funeral of a relative in an adjoining county. My wife, knowing nothing at all about the transaction, when the agent called her up and told her there were three hogs there which had been shipped to me and they were in bad condition, sent for them at once. The hogs were then badly tainted and hardly fit for soap grease.

Taken to Court

Upon my arrival home the following day, Friday, I called Mr. Smith up and asked why he had shipped me the hogs. His only reply was that he was not buying rotten meat. Although I did not like to go to law I felt that I was in no respect responsible for this loss and should not bear it.

I knew only one lawyer in Elkins at that time and to him I went for counsel. Much to my surprise, he frankly told me he had been engaged by Mr. Smith to defend him in the event I brought suit. I thought over the matter and concluded that it was such a clear case that I could win it without any counsel. I brought suit for the value of the hogs \$42.

Mr. Smith had taken every one he could get into his shop to see the bad condition of the hogs. When the day for the trial came, Mr. Smith had 23

witnesses present. Mr. Howell, whom I had purchased the hogs, son Hays, who hauled the hogs to the station, and Mr. Griffith, a son-in-law who helped to butcher the hogs, were my witnesses. It was no trouble to prove by these three witnesses that the hogs were in a healthy condition and that they were dressed and started for the station by 8:30 on Tuesday morning. Hays Howell swore that he unloaded the hogs in the car.

"In the mouth of two or three witnesses every word shall be established," but I had proved by only one witness that the hogs had been unloaded on time. If I had only had one other witness to corroborate what young Howell had said about loading the hogs from the wagon into the car. The agent at Belington, the local station, was the man I needed. Calling Mr. Howell to one side I told him to go and call Mr. Campbell, the agent at Belington, and insist that he come on the next train. Mr. Howell hastened to do what I requested, but it was time for the train to leave Belington.

The Missing Link

In a few minutes my nerves were settled by being told by Mr. Howell that he reached Campbell just in time for him to board the train. The defense was through with its 23 witnesses. It was five o'clock and the lights had been turned on. What could I do to continue the case for an hour? A hundred times during the day I had wished for a lawyer to help me.

Some of the witnesses for the defense had sworn that they believed the hogs had been dead for a week, had made out a good case, but there was one missing link. That link was to connect the wagon with the car at the siding at Belington. In order to kill time I had a summons issued for a man living out of town and the constable was instructed to find him and bring him into court if possible. My friend, the lawyer for the defense, began to insist that the plaintiff rest the case and it took no little argument to convince the court that it should not be done.

The blowing of the whistle announced the fact that the train was coming into the station. Mr. Howell, who had been doing all he could for me all day, was dispatched to the station in post haste to meet Mr. Campbell and find out from him just what he knew about the case.

Continue the Case

When Mr. Campbell came into the court room, I asked that he might be sworn, to which the lawyer objected, stating that he had not been summoned, which objection was overruled by the court. Mr. Campbell stated that he helped to load the hogs that they were still bleeding and that the train left on time.

I asked, "If the train had not reached Elkins that night would you agent have been notified?" He said he would. "You received no such notice?" To which question Mr. Campbell replied, "I did not." It was now 6:30 p. m. and I was never more nearly worn out. I suggested to the lawyer that we submit the case without arguing it.

My friend said Mr. Smith would never forgive him if he did so but that he would ask the Court to continue the case until nine o'clock the next morning. This the Court did. I went to the hotel, got a room and retired at ten o'clock. It was another of those nights in my life that I could not sleep. I tried in vain until midnight. I got up, turned on the lights and from that hour until seven a. m. I worked on the case.

(To be continued.)

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Mr. Smith had taken every one he could get into his shop to see the bad condition of the hogs. When the day for the trial came, Mr. Smith had 23

witnesses present. Mr. Howell, whom I had purchased the hogs, son Hays, who hauled the hogs to the station, and Mr. Griffith, a son-in-law who helped to butcher the hogs, were my witnesses. It was no trouble to prove by these three witnesses that the hogs were in a healthy condition and that they were dressed and started for the station by train on Tuesday morning. Hays Howell swore that he unloaded the hogs in the car.

"In the mouth of two or three witnesses every word shall be established," but I had proved by only one witness that the hogs had been unloaded on time. If I had only had one witness to corroborate what Mr. Howell had said about loading the hogs from the wagon into the car, the agent at Belington, the losing station, was the man I needed. Calling Mr. Howell to one side I told him to go and call Mr. Campbell, the agent at Belington, and insist that he come on the next train. Mr. Howell hastened to do what I requested, but it was time for the train to leave Belington.

The Missing Link

In a few minutes my nerves were settled by being told by Mr. Howell that he reached Campbell just in time for him to board the train. The defense was through with its 23 witnesses. It was five o'clock and the lights had been turned on. What could I do to continue the case for an hour? A hundred times during the day I had wished for a lawyer to help me.

Some of the witnesses for the defense had sworn that they believed the hogs had been dead for a week. I had made out a good case, but there was one missing link. That link was to connect the wagon with the car at the siding at Belington. In order to kill time I had a summons issued for a man living out of town and the constable was instructed to find him and bring him into court if possible. My friend, the lawyer for the defense, began to insist that the plaintiff rest the case and it took no little argument to convince the court that it should not be done.

The blowing of the whistle announced the fact that the train was coming into the station. Mr. Howell, who had been doing all he could for me all day, was dispatched to the station in post haste to meet Mr. Campbell and find out from him just what he knew about the case.

Continue the Case

When Mr. Campbell came into the court room, I asked that he might be sworn, to which the lawyer objected, stating that he had not been summoned, which objection was overruled by the court. Mr. Campbell stated that he helped to load the hogs that they were still bleeding and that the train left on time.

I asked, "If the train had not reached Elkins that night would you and agent have been notified?" He said he would. "You received no such notice?" To which question Mr. Campbell replied, "I did not." It was now 6:30 p. m. and I was never more nearly worn out. I suggested to the lawyer that we submit the case without arguing it.

My friend said Mr. Smith would never forgive him if he did so but that he would ask the Court to continue the case until nine o'clock the next morning. This the Court did. I went to the hotel, got a room and retired at ten o'clock. It was another of those nights in my life that I could not sleep. I tried in vain until midnight. I got up, turned on the lights and from that hour until seven a. m. I worked on the case.

(To be continued.)

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That is the LOWEST PRICE at which you could have a car with a Mono-piece Steel Body, the most advanced construction known to the industry.

That is the LOWEST PRICE at which a Six with internal-expanding 4-wheel hydraulic brakes ever has been offered.

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That is a SENSATIONAL VALUE in engineering — with Down-Draft carburetion; both air and oil cleaner; 220.7 cubic inch piston displacement; 4-wheel hydraulic brakes.

That is a SENSATIONAL VALUE in comfort and luxury — 4 hydraulic double-acting shock absorbers; low swung, silent, safe Mono-piece Steel Body; pillow-type mohair or broadcloth upholstery; adjustable front seat.

That is a SENSATIONAL VALUE in its typical Dodge Brothers quality and dependability.

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NOT one of the old ways keeps food constantly cold enough. They all encourage food spoilage, waste, and digestive troubles.

If you have electricity on your farm, save food, time, and health by installing a General Electric refrigerator. Its trouble-free, guaranteed mechanism is sealed in a *permanent* supply of oil. It is automatic in operation, extremely quiet and economical, and it always maintains a temperature under 50 degrees. The shelves have plenty of space to keep a

good supply of foods.

Of the same years-ahead design is the General Electric milk cooler. It pays its way in added milk profits by preventing rejected milk and retarding bacterial growth.

Other General Electric products such as MAZDA lamps, G-E motors, G-E cleaners, and Hotpoint heating appliances and electric ranges can do many of your hard tasks quicker, better, and cheaper than they were ever done before.

Join us in the General Electric Hour, broadcast every Saturday Evening on a nation-wide N.B.C. network

GENERAL  ELECTRIC

95-760

May 17, 1930

Farm Engineering

By R. U. BLASINGAME

Three Plow Shares

WERE dynamiting some stones out of a field last week and found three plow share points under one stone. The farmer who owned the farm said that rock cost him many times what it cost to blow it out. It took 25 cents worth of dynamite to get rid of the stone, which is about one-third the cost of one cast plow share.

I believe the next move in land reclamation is going to be in the East, clearing land of rocks which interfere with power farming equipment.

Tight stones interfere with plowing, cultivation, potato digging and other operations. After stones have been blasted out they can be loaded on a stone-boat and hauled away either by a team or a tractor.

Kerosene Good Cleanser

MANY women do not appreciate the virtues of kerosene as an aid in household cleaning. A tablespoonful in the water for washing windows cuts grease easily and leaves the glass bright and clear. For cleaning sinks, bathtubs, lavatories and so on, nothing is better than a little kerosene mixed with whiting or some fine scouring powder.

A little kerosene in water helps the daily cleaning of kitchen and bathroom and laundry equipment, as this will remove dirt and grease without hard rubbing. This is also good for washing painted woodwork and walls. A cloth moistened with kerosene keeps the stove in good condition, but should not be used when the stove is hot or there is fire in it.

Good dustless dusters can be made by soaking clean cloths in a quart of water in which a tablespoonful of kerosene has been dissolved, and then drying them. Cloths so treated must be kept away from fire, and in all handling of kerosene it should be kept in mind that it is highly inflammable.

Speed for Good Work

A READER writes for information about a hitch for pulling a cylinder disk plow with eight horses instead of a tractor. It should be kept in mind that the work done by this type of plow is more dependent on the speed at which it is pulled than is the case with moldboard plows.

A higher speed than is possible with horses is often desirable and hence these plows are better adapted to tractor than to horse operation. However, the manufacturers of disk plows are probably the best judges as to how such plows will operate with horse power under your soil and moisture and wheel conditions, and hence I suggest you take this up with the firm manufacturing your outfit.

This same factor of the proper speed for best operation is also important with other farm machines, especially with the rotary hoe. D.

Glued Joints

THE search which wood experts have been making for many years for a glued joint that would resist moisture indefinitely seems nearly finished. Engineers from the Forest Products Laboratory took casein-glued plywood, treated some of it with creosote and the rest with beta-naphthol in oil, and exposed it to dampness and mold in a fungus pit. Specimens taken from the treated plywood after two and one-half years in the pit showed an average strength of about 80 per cent of that when put in. Such an exposure is far worse than joints are likely to meet even under the worst practical conditions. I. W. D.

PENNSYLVANIA FARMER

(711) 17

E NOW! Eastern Farmers adopt a Western Feeding Practice



Chopped Hay

Gains Favor as Practical Method for Increasing Milk and Beef Production—Decreasing Handling, Storage and Feed Costs.

CHOPPED hay—universally popular in the great dairying and cattle producing states of the far West—is meeting with instant approval wherever it's tried in the East. Long hay—with its wasteful bulk and high cost of handling—is doomed.

Dairy and stockmen of California, Washington, Oregon and Idaho first experimented with chopped hay to make their legumes take the place of as much high-priced grain as possible. What happened? They got more consumable feed from the same acreage—more milk and beef from each ton of hay. And this at no more cost than the old method.

Cheaper to Handle

With this method hay is raked, cured and loaded in the field as usual. The load is then fed to a Papee Hay Chopper and blown into the barn. With 3 men pitching to the chopper, the load is off in from 10 to 12 minutes. No one needed in the barn to tramp or "mow back." Foster S. Reese, Benson, Utah, writes: "We ran into the barn 24 loads of about a ton each in 1 1/2

hours. This is 8 loads better than our best half-day run with the fork."

Takes Less Space

The moment you chop hay you double the capacity of your hay barns, for chopped hay saves from 1/2 to 2/3 your space.

Stock Eat it All

20% to 30% of the long hay you feed is wasted. But chopped hay is more palatable and stock clean it up like grain. Think what this means! You feed more stock with the same acreage. . . Increase milk flow or weight gains by enabling the same stock to consume more feed. And these are proven facts—not theories.

Less Spoilage

Chopped hay has less tendency to spoil, burn or mold in the mow or stack. In some instances long hay that has spoiled can be run through the chopper and rendered palatable to the stock.

Easier to Feed Out

You know what a back-breaking job it is to fork out long hay once it is settled in the mow. Chopped hay is easy to fork. Many farmers handle it in baskets, like silage.

1 Machine Serves Two Purposes

The Papee Hay Chopper is also an efficient ensilage cutter. You can chop and store your hay—then the same machine without alterations fills your silo with corn. Another worthwhile economy.

Right now, before the haying season starts, is the time to learn all about this feeding practice that enables farmers everywhere to make a profit in spite of markets. Ask us for the book, "A Better Way to Put up Hay." It's full of facts and figures that are sure to surprise you. And it's free to you.

8 BIG ADVANTAGES

1. Eliminates feeding waste
2. Increases milk production
3. Makes faster weight gains
4. Costs no more to put up
5. Easier and cheaper to feed out
6. Takes only half the storage space
7. Keeps better in mow or stack
8. Increases the net return per acre

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PM-16

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53 More Bu. of Potatoes

Pay for Spray Material

and Show Extra Profit..

CHALLENGED to make a convincing test of Pyrox in comparison with bordeaux, George S. Ranck, of New Holland, Pa., made such a test on his farm. The results showed that the acre of potatoes sprayed with Pyrox yielded 53 bushels more than the acre sprayed with bordeaux. The fine Pyrox spray gave better protection against blight. Mr. Ranck writes:

"In discussing Pyrox with your dealers, A. B. Groff and Son, at New Holland, a challenge developed which resulted in my making a test of Pyrox and home-made bordeaux sprays on my farm this past season.

"A two-acre plot with uniform soil was selected and one-half was sprayed with bordeaux mixture 8 times and the other half with Pyrox 8 times. All other conditions—preparation, seed, time of planting, and cultivation—were the same.

"Potatoes from test rows in each plot were weighed at digging. The acre sprayed with Pyrox yielded 53 bushels more than where home-made bordeaux was used, the yields on the two plots being 337 bushels for Pyrox and 284 for the bordeaux mixture.

"During the growing season the fine Pyrox spray gave greater protection against blight, as all the leaf surface was covered. Better protection, increased yields per acre, and lower cost of production all help to make greater profits."—GEORGE S. RANCK.

Another Grower Gets \$97 per Acre Extra Profit

Another Pennsylvania grower who has made extra cash from potatoes by using Pyrox is Mr. Miles B. Landis, of Lancaster, Pa., who got \$97 per acre increased profit with Pyrox last season. He writes:

"Before this year I have al-



Mr. George S. Ranck of New Holland, Pa., exhibiting Pyrox-protected potatoes which yielded 53 extra bushels per acre.

ways used a regular bordeaux mixture. This year I tried Pyrox and certainly feel well satisfied with it because of its time and labor saving qualities. I further believe that I get a better control of disease and insects with Pyrox.

"The quality of my potatoes this year was very high. I am getting a premium of ten cents per bushel over the regular price here. I figure that my increased yield due to Pyrox was 45 bushels per acre."

MILES B. LANDIS
November 5, 1929

These big extra profits are possible because Pyrox, the scientifically-prepared all-purpose plant spray does three things at once. It kills bugs, prevents blights, and other diseases, and stimulates plant growth. Reduces production costs. Does away with the costly labor and doubtful results of home-made spray mixtures, and eliminates all danger of "burning" and other damage from improperly mixed chemicals. Easy to use. Gives the finest mist—will not clog nozzles. Sticks like paint to plants. Now priced lowest in 31 years. Write us or ask your dealer for a copy of the free Pyrox Spray Guide.

BOWKER CHEMICAL COMPANY

419 Fourth Ave., New York, N. Y.

THE NEW IMPROVED
Pyrox
REG. U. S. PAT. OFF.



Horticulture

Mouse Injury

I have some eighteen apple trees about fifteen years old. The bark has been chewed off by field mice. Would you kindly tell me what to do with them?

In the fall when we pick our apples they have worm holes in and are knotty. They look as though they have been stung. What would you advise?
Ephraim W. Moyer.
Northampton county, Pa.

THE usual procedure is to bridge graft the injured trees. Long cions are cut, and sharpened at each end; one end is inserted beneath the bark above the wound and the other below the wound. They are held in place with small brads and the ends are waxed over. The details are given in Circular 103, "Budding and Grafting," published by The Pennsylvania State College.

However, it is now too late to bridge graft unless the cions were cut last autumn or during the winter, and were held in a dormant condition in the cellar or buried in the ground, or in cold storage. If dormant cions can be secured, bridge grafting may be done up until June first. If not, paint the wounds with liquid grafting wax or melted paraffin, and mound up the soil over the injured portion. This will keep the wound moist and favor healing. It would be advantageous, also, to cut back the trees heavily, and to give them a liberal application of manure or nitrogenous fertilizer.

Your apples evidently are attacked by the codling moth, which makes apples wormy, and by the red bug curculio or rosy apple, which makes them knotty. S. W. F.

Trees Winter Killed

We have trouble with young apple trees. Quite a lot of them have winter killed or something. The bark is dead just under the ground. We had old papers around them this winter to keep the mice and rabbits from eating them. They appear to be coming out in leaf. Are about three years old. Is it practicable to bridge graft them?
Tauphain county, Pa. E. F. Fulton.

NOTHING can be done for these trees except possibly to give them a stimulant of nitrate of soda, or other nitrogenous fertilizer.

Crown injury is a common form of winter killing, especially when the trees grew quite rapidly the previous fall and the wood went into the winter in an unripened condition. It also appears when the trees stand in loose soil and are swayed by the wind, so that there is a crack around the crown; water settles in the crack, freezes, and the bark is killed at that point, while the bark of the roots below and the top above is green and healthy. You cannot cut these trees back, because the injury is below the radicle and the renewal growth would be merely the seedling root stock. S. W. F.

Peach Tree Borers

Was waterwashing with lime hurt five-year-old peach trees? Will it kill peach borers? Walter Kusselman.
Jefferson county, Pa.

WHITWASHING will not hurt five-year-old peach trees; neither will it help them materially. It will not kill peach borers.

The old method of digging out the borers in May and October is still effective, but expensive. It has been replaced very largely by the use of paradichlorobenzene. This may be bought, under several trade names, at most drug or hardware stores.

Mound fresh soil around the base of the tree, several inches high in September or early October. Sprinkle one-fourth to one ounce of the chemical around each tree, according to the size of the tree; one-half ounce should be sufficient for five-year-old trees. Apply it in a narrow ring about an inch from the trunk; the material should not touch the trunk. Throw a few shovelfuls of loose soil over it and tamp this down with the shovel. The mound should be leveled off the next May or June. S. W. F.

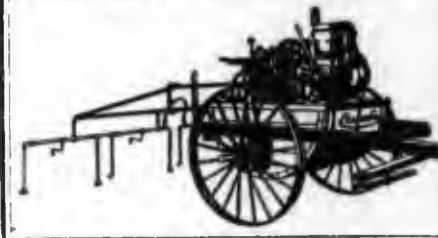
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SPRAYERS

Traction or Power

Do the biggest, most important job in raising field crops and fruit. Increase yield 50 to 200 per cent. Improve quality. Insure investment by destroying bugs, preventing mold and blight.
Traction Sprayer has 1, 2 or 3 nozzles per row; 4, 6 or more rows per boom. Wheels adjustable to width of rows. 60 to 100 gal. tanks. Double or triple action pumps. Thousands of satisfied users.
Combination and Power Sprayers for orchards, groves, and field crops, have 3 cylinder pump-pressure regulator; several sizes of engines and tanks for pressures 20 to 40 lbs. with spray booms and guns.

In stock near you. Write for Catalog on Eureka Sprayers
Eureka Mower Co., Box 1406, Utica, N.Y.



A Really Good NEW FARM TRACTOR



A TWO-PLow TRACTOR adapted to all classes of farm work, has a wide range of usefulness—for drawbar and belt power operation.

Economical—Powerful

Has more good features than any other tractor, some of which are three speeds forward, thermostatic engine temperature control, oil filter, two air cleaners, pressure oiling system, Bosch magneto. Operates with gasoline, kerosene or distillate.

WRITE FOR FOLDER and easy payment plan. We also have a complete line of steam engines, threshers, saw mills, tractors and accessories.

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In Pennsylvania
Arsenate of Lead, Calcium Arsenate, Magnesium Arsenate, Dowco, Bordeaux, Dry Lime Sulphur, Dow Special Potato Spray.

A complete line of insecticides and fungicides on hand in Reading.

Write your spray problem to us.

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SAVE MONEY! Get your roofing direct from the factory and keep your own pocket the profits the dealer would get. All kinds and styles. Galvanized Corrugated, Shingles and Asphalt Roofing. Freight paid. Easy to mail on. Write TODAY for Free Samples and freight paid prices. FREE SAMPLES.
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STANDARD GARDEN TRACTOR

A Powerful Tractor for Small Farms, Gardens, Plots, Nurseries, Fruit Growers and Poultrymen. DOES MEN'S WORK. Walking & Riding Equipment. Free Catalog—Does Belt Work.

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Minneapolis, Minn., Philadelphia, Pa., New York, N. Y.
371 Como Ave., 2425 Chestnut St., 184 Cedar St.

Transplanted STRAWBERRY PLANTS
Best for May, June and July. Planting just as good as 1st year. Also Blackberry, Raspberry and other fruit plants. Strawberry plants from \$1.00. Strawberry plants from \$1.00. Strawberry plants from \$1.00.
Box 270, Pulaski, N. Y.

Truck Crops

By GILBERT S. WATTS

"MR. JOHN J. CONSUMER, Park Avenue or Main Street, America, buys vegetables on appearance and remains sold on quality." That is quoted from the Western Grower and Shipper, the official publication of the Western Growers' Protective Association. That our western friends appreciate the strength of this team, Appearance and Quality, is proved by the fact that California, which produced but one per cent of the total carrot shipments of carrots in 1921 and 1922, produced 53 per cent of such shipments in 1929.

Incidentally, shipments of carrots last year reached a total of nearly 12,000 cars. This vegetable is gaining in popularity at an astounding rate. "Miss Goldie Carrot," to quote again, has become well known and is liked throughout the land.

"PLEASE advise if it pays to save or raise your own garden seeds." Mr. W. H.

In college I asked that question of an experienced grower-professor. He replied with the query, "Are you sure you have any strains that are superior to those which you can buy from reputable seedsmen?" In fact wonderfully fine seeds are available at prices which scarcely cover the cost and pains of home saving.

On the other hand there are compensations in growing vegetables from seed that one has selected in his own garden. Sweet corn, tomato, pepper, eggplant, cucumber, squash and melon seeds may be saved with little trouble. But to go back to the professor's remark, if our efforts are to be really worth while care must be exercised to begin with fine strains.

"HERE'S twenty cents for a squash I bought last fall. This is my first trip past your market since you opened this spring." On the rare occasions when a customer at the roadside market makes a purchase and finds the pocketbook forgotten or empty we never inquire the name or enter a charge. Thus the opening of a credit business is avoided and I am sure we never have lost enough to buy a bookkeeper's ledger.

WITH the sun now as high in the heavens as in early August surprising quantities of water are required, particularly on windy days, to keep the vegetable plants under glass growing without check. Where water applied by one man in an hour or two daily was ample a month ago two of us frequently must water during several hours now. Even so I am inclined to believe that some of our celery plants have been held back more or less by deficiency of moisture.

TO ward off attacks of maggots in the late cabbage plant beds drench the soil along the rows at intervals of eight to ten days with corrosive sublimate, one ounce dissolved in ten gallons of water.

To Protect Tomato Plants

THE supply of early canhouse tomatoes is limited, a situation which makes urgent the need to protect the plants both before and after they are set in the field.

Cut worms may be destroyed through the use of a poisoned bran mash, according to C. H. Nissley, New Jersey extension specialist in vegetable growing. To prepare such a mash, first make a dry mixture of 20 pounds of bran and one pound of fresh Paris green. Then mix two quarts of cheap molasses with the juice of two or three lemons and about three and one-half gallons of water. All of these materials are next combined to make a wet mash. As cut worms are active only at night, the bran mash should be broadcast, or small quantities placed near the plants, in the evening.

HALF WAY LUBRICANTS WON'T DO IN A TRACTOR

YOU can't always tell the difference between a good lubricant and a poor one in an automobile running on a paved highway. But you can easily spot the difference between good oil and half-good oil in a working tractor!

For a tractor plugging its way through dust and dirt—plunging up and down the uneven ground which you find even in the most level field—working in the blazing sun and the chilling rain—puts lubrication to a more severe test than any automobile.

That's why you'll find AMOCO TRACTOR OIL making such strides with farmers who figure costs closely. There's a grade for every make and model of tractor—a grade that will keep each tractor at top-notch efficiency all day and every day!

AMOCO MOTOR OILS and Greases, too, for better lubrication of passenger cars and trucks.

Ask your AMOCO dealer, call our nearest branch or write us direct for further information.

The AMERICAN OIL COMPANY

Associated with
Pan American Petroleum & Transport Company
General Offices: American Building
Baltimore, Md.



READ THE ADVERTISEMENTS TO RECOGNIZE PRODUCTS THAT ARE WORTHY OF YOUR CONFIDENCE

For Maximum Yields You Must Spray!

HOWEVER good your seed—however thoroughly you plan and fit your land, or however liberally you supply plant foods—maximum yields cannot be obtained unless the growing plants are protected from the ravages of disease by frequent timely and thorough application of

BORDEAUX MIXTURE

The most effective of all fungicides—Safeguard the strength and purity of your spray mixture by using only

Nichols Triangle Brand Copper Sulphate

The Standard of Quality—99% Pure

Write for free booklet on preparation and use of Bordeaux Mixture with directions for preparing "instant" Bordeaux.

Nichols Copper Co.

46 Wall St. New York 230 N. Michigan Ave. Chicago

HAY BALERS

Built for Capacity

and turn out most bales of hay or straw. This is a money maker. Write for description and sizes.
A.B. Farquhar Co., Limited, Box 746, York, Pa.

POWER MOWER SHAW GARDEN TRACTOR

Never Idle. In growing season the best machine. Two speed gear. World's best power. Write for Factory Price. Shaw Mower Co., Div. F-2, Type Lawn Mower, Danbury, Conn.

HAY MOWERS TRACTOR-DRIVEN

Cut twenty to thirty acres a day. Models for use with McCormick-Deering 10-20, Fordson, Caterpillar 10 & 15. United and other tractors. Write for particulars.
DETROIT HARVESTER CO., Detroit, Mich.

THE YOUNG PEOPLE

Why I Want to Go to School

First Prize

I THINK we should try to impress on every farm boy and girl the importance of an education and steady attendance at school. Too many are kept home for the least little reason and merely put in their time at school until they are sixteen and can quit and work on the farm.

They do not realize that an education is needed there just as much as in any other station of life and if they intend to farm they should educate themselves for that, not just jog along as their grandfathers did before them.

The world is too far ahead of those times and if we ever expect to get any place we will need all the education we can get to keep up with the progress in all the other walks of life.

Yours for more schooling for farm children. Gray Foster.

Pennsylvania.

Second Prize

I want to go to school because the one with an education is usually successful in life. When we dig down to rock bottom we find there are four real reasons for us to attend school. We owe it to ourselves, our family, our community and our country. If we do not attend school, some one else may follow our example. If every one felt this way we would not have any school—especially high school.

Therefore, if there were no foundation for further study, progress and growth in the world would stop. Going to school does more than just help you earn more money; it also helps develop your mind. Many employers would reason that if a boy was not ambitious enough to go to school he would not be a very industrious worker.

Think it over! Is it worth your while to go to school?

Pennsylvania. Carl Buck.

Additional prizes have gone to Jane Cape, Marion Bender and Elizabeth Keener, all of Pennsylvania.

PRIZE LETTER

YOU want some suggestions about how to improve the Young People's page. That is hard for me to give. I don't see anything wrong with it the way it is now. The poems, drawings, puzzles, pictures and contests give us something new to look forward to each week. The instructions on how to make toys and useful things are also helpful.

I'm glad you let us have a part in making the page ourselves when you give us a chance to draw, write or solve puzzles. The only change I can see that the page needs is to have more letters and stories by the young people. I enjoy reading letters written by other young readers more than most anything else, and I'm always glad when you give us a page of letters and snapshots or real people.

The answers to the puzzle are given below. Bonnie M. Davison.

West Virginia.

Answer to A B C Puzzle

The farmer leads no E Z life.
The C D sows will ret;
And when at E V rests from strife
His tones all A K let.

In D D has to struggle hard
To E K living out;
If I C frosts do not retard
His crops, there'll E A drouth.

The hired L P has to pay
Are awful A Z too;
Try C K rest when he's away.
No N E work will do.

Farm N Z cannot make to meet
And then for L P takes
Some readers who so B T eat
And E for money makes.

Of late V C find his life
Such an old A G life;
The girls he O Z leaves his wife,
And then in P C dies.

The old farm needs some stables,
The old house needs some paint.
The front porch steps are broken.
A hinge is off the gate.

The old man's gone a-dishin',
The carpets on the line.
The hired girl's a-dishin',
An' her house-cleatin' time.

And her dithin' with the butter
An' Bud won't do a thing.
The baby has the colic—
Don't talk to me of spring!

Contributed by Flora Williams.

Have You Won a Prize?

SUCH nice letters as I find in my mail every morning! I wish I could put them all on our page for you to see, too. Don't get discouraged if your contribution doesn't appear the first week or even the second week after you sent it. It doesn't mean that I didn't appreciate it; just that we didn't have space. Try again—and even again—and perhaps your contribution will be just the thing we have been looking for.

Even if we can't have more space, we can be a little more discriminating in using the best that we have. So let us all try to make the Young People's page a "big" page within the boundaries the editors have allotted us.

This is your page and it is up to you to fill it with the very best stories or pictures you can send. Everybody may join in the fun and share in the fine prizes given each week.

Try your hand at these contests; send your letter before May 31st to Young People's Editor, Pennsylvania Farmer, 7301 Penn Avenue, Pittsburgh, Pa.

Three prizes each for the best cartoons on—

1. The Kicking Cow.
2. The Batty Mule.
Three prizes each for the best letters on the following subjects:—

1. Who Would You Rather Be if Not Yourself?
2. My Most Exciting Adventure.

—Young People's Editor.

"SPRING FAIRIES"
By BARBARA E. SHOEMAKER

The blossoms were waving—
All white in the breeze.
When down came the fairies
To play in the trees.

They danced in the sunshine
So happy and free,
Sung songs to the blossoms
And chased a poor bee.

A few crystal rain drops
Which had chanced to roam
Came pattering down
And the fairies ran home.

THE LAST DAY OF SCHOOL
Mamie Stoltzfus, Pennsylvania.

Picnic Games
The Sack Race

JUST the plain old-fashioned sack race, in which contestants have both legs in a sack and must run to the goal and return, thus impeding.

Excitement is added if the relay plan is used, whereby each runner must on returning to the starting point, take off his sack and give it to the other runner of his team! When one is in a hurry that is a very easy thing to do!

THE SACKS
Runners are given sawed-off broomsticks which they are to put under their bent knees. They are to keep them there while they race, inch by inch, to the goal and back. The course should be a short one.

THE SQUATTERS' RACE
Runners bend knees, squat on heels, and with hands on hips, go to the goal and return at a whirlwind pace—mayhap! What is more, nothing is said to them about the way they will undoubtedly feel the next morning! One should be merciful and make this course, too, a short one.

THE SURE SIGNS
The old farm needs some stables,
The old house needs some paint.
The front porch steps are broken.
A hinge is off the gate.

THE OLD MAN'S GONE A-DISHIN',
The carpets on the line.
The hired girl's a-dishin',
An' her house-cleatin' time.

And her dithin' with the butter
An' Bud won't do a thing.
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Four-H Club Attend Camp

THE Fourth National Boys' and Girls' Four-H Club Camp will be held in Washington, D. C., on the grounds of the Department of Agriculture, June 18 to 24.

Pennsylvania's delegates to this important event have been selected. The home-making club members will be represented by Edna Hower, of Northampton county, and Madelon Stitt, Juniata county. The agricultural club members will be represented by Harry L. Smith, Union county, and Herbert K. Anders, Montgomery county.

Edna Hower has been in club work since 1926. She has been in a potato club, sewing club, canning club, and My Own Room Club. All this has been done in addition to home responsibilities as the oldest one of nine children.

Profitable Work

Madelon Stitt also started her Four-H Club activities in 1926. She has completed three years of sewing club work and one year of My Own Room Club work. She will go into nurse's training on completing high school. Both girls have acted as leaders in their clubs.

Harry Smith grew 458 bushels of potatoes to the acre in 1928, and has engaged in dairy calf club work for three years. Herbert Anders has been a Guernsey calf club member since 1923. They have found it profitable to be Four-H Club members and have savings accounts as a result of their work. Both boys have represented their counties at Young Farmers' Week at State College. Each has been president of his club. Herbert has acted as assistant local leader of his club since 1928.

Little Folks' Corner

REMEMBER the little story Virginia wrote for you last year about Tommy's toad? Well, here is another story she has written. Write and let me know how you like it and perhaps this author will tell us another adventure of this small boy.

Address your letter to Little Folks' Corner, Pennsylvania Farmer, 7301 Penn Ave., Pittsburgh, Pa.

"Roses and Sugar Cookies"

By EDITH VIRGINIA KIRKWOOD

"TOMMY, did you fall asleep watching old Mr. Toad?" Tommy sat up and rubbed his eyes. Sure enough, he had been lying flat on his stomach dreaming of a queer old toad. Over there was his little red wagon right where he had left it, but the old black pussy cat to which he had been trying to fasten it was nowhere to be seen.

"Tommy, will you take some of these pretty red roses over to Grandma's? They'll cheer her up a bit."

"All right. Can I take my wagon?" The little five-year-old boy jumped up and in a few minutes was off, trudging down the street with his small wagon filled with gifts for Grandma.

Tommy liked to go and visit Grandma for she lived alone in a little old house a short distance away and always kept good things for little boys.

"Hope she has some sugar cookies like she had the last time," he said to himself, looking back every now and then to see if the flowers were still safe. Just then a big dog came running up the street toward him. Now, Tommy liked little dogs and wasn't a bit afraid of them, but this—this was a great big dog. It stopped and started to inspect the little red wagon. Tommy pulled back a little.

"Gee! Go on, ya can't snarl them flowers. They're Grandma's."

The old dog looked up a bit surprised and then, walking around the wagon, he began sniffing at the fragrant little flowers' feet. At his pockets and finally stuck his old nose right up on Tommy's neck.

"Gee! Go 'way!" the child stammered, drawing farther back and stalling his foot in an effort to chase this huge creature away. But Tommy stamped too hard and lost his balance. Backwards he fell right into the gutter, tumbling the little wagon and all the roses on top of

him. Now, there wasn't enough water in the ditch to drown the little chap, but there was enough to make him wet and dirty and to spoil all the pretty flowers.

"That m-m-mean old d-dog," he sobbed, scrambling to his feet and smearing his dirty little hands across his face, wiping away the tears.

"Poor G-gran'ma won't have no n-nice f-flowers now," Tommy continued as he picked up his wagon and a few stragglers wet roses.

"Oh, yes, she will, honey. Here's a real pretty one that must've saved itself for me." And looking up Tommy saw Grandma herself picking up one of the pretty roses from the sidewalk. She had seen him from her front porch and came to help.

"Oh, thank you, Gran'ma," Tommy said, his dirty little tear-stained face brightening into a smile, as he reached for the big sugar cookie that Grandma took from her apron pocket.

TREES

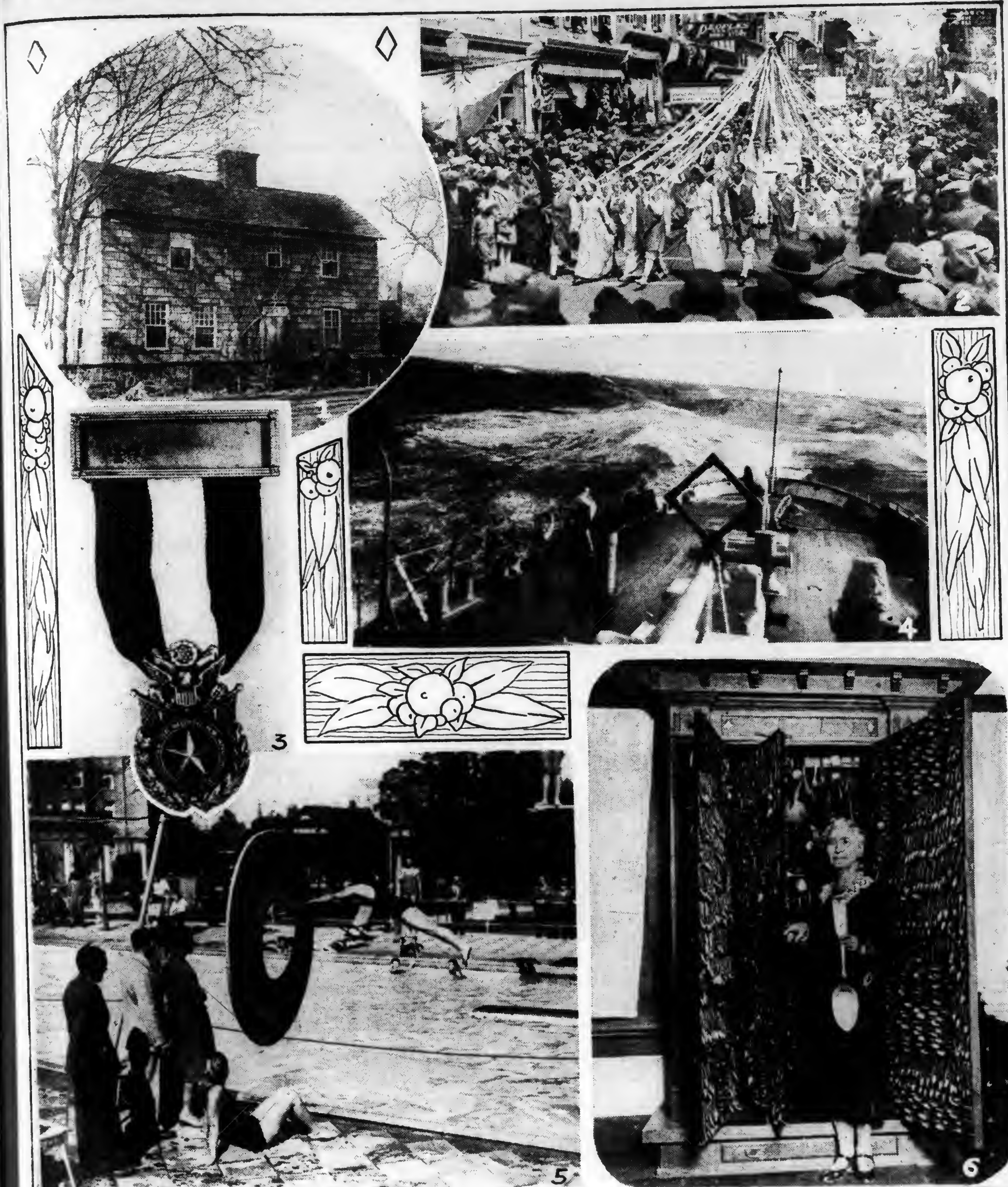
LOMEHCK
PALPE
AKO
RUSPEC
PELAM
RACED

By Christine Winnies, Pennsylvania

NO wonder the young lady looks disgusted! This spelling is terrible. See if you can change the letters to spell the names of well-known trees.

Then when you have written these names carefully on a sheet of paper, suppose you also write a short story on "What I Would Do If I Had \$500." Send it to Little Folks' Corner, Pennsylvania Farmer, 7301 Penn Ave., Pittsburgh, Pa., and perhaps receive one of the ten prizes offered.

PASSING EVENTS IN PICTURES



1. Easthampton, L. I.—A view of "Home, Sweet Home," the house which inspired the American author, John Howard Payne (1792-1852) to write the immortal song "Home, Sweet Home," as it appears today. There is an old windmill still standing on the grounds.

2. An attractive view of the main street of historic old Winchester, in the famous Shenandoah Valley, as Virginia's fairest daughters marched through its streets in the gay parade which opened the annual Apple Blossom festival.

3. The official Pilgrimage Badge for Gold Star mothers and widows, as authorized by the War Department, which will be issued by the Quartermaster Corps, U. S. Army.

4. A storm at sea.—Coast guard cutter runs into dirty weather on ice patrol in northern Atlantic. Photo shows a heavy sea as seen from the deck of the U. S. C. G. cutter Mojave, which is on ice patrol duty in the Northern Atlantic.

5. Los Angeles, California.—Johnny Riley,

national ten-foot diving champion, on his way through the air to score a perfect bullseye in the novel sport of "target diving" introduced here by the stars who are preparing for the annual spring swimming meet.

6. Dr. Ella Kyes Dearborn of Portland, Ore., with her wonderful collection of 2,157 spoons gathered from every country in the world. The largest, which she is holding, is 23 inches long, and the smallest, which were made by a Chinaman, must be viewed through a powerful magnifying glass.

CONTROL BACTERIA...IN MILK

85% of the bacteria that gets into milk at the farm comes from contact with non-sterile utensils and containers. Much well water used to rinse utensils is contaminated with bacteria. Eliminate bacteria with the B-K plan of sterilization.



1 Milking machine parts should first be rinsed with clear, cold water, followed by hot water—then soaked in a B-K dilution.



2 To prevent contamination and make easy cleaning, run a B-K dilution through separator just before using.

Use B-K according to direction charts in every package. They comply with Federal Law. Send for Bulletin 124 on Dairy Sterilization.



3 Cans, buckets, strainers, coolers, fillers and bottles should be rinsed with a B-K dilution just before using.

GENERAL LABORATORIES, Inc., 515 Dickinson St., Madison, Wis.

20th Co-operative Consignment Sale of REGISTERED HOLSTEIN CATTLE

(Selected from the Choice Herds of Bradford, Tioga and Sullivan counties, Pa.)
Thursday, May 22nd Troy, Pa. Sale Pavilion
(Sale Starts Promptly at 12 O'clock.)

40 Cows Fresh or near Springers 12 Yearlings and Calves 11 Bulls
All but a few head are fully accredited. All are Tuberculin tested and sold with a 60-day retest privilege.
19 Head from herds negative to blood test for abortion.
A number of the entries have C.T.A. records or are from dams with C.T.A. records ranging up to 18,749 lbs. milk and 974.5 lbs. butter.
A considerable number are sired by 1,000-lb. sires, and many of the females are bred to 1,000-lb. bulls.
Several of the bulls consigned are exceptionally well bred, of service age, and from dams with high production records.
For catalog apply to R. H. FLEMING 312-315 Main Street, TOWANDA, PA.

the New

PRIEST

REINFORCED CONCRETE STAVE

SILO

SEND FOR FREE FOLDER

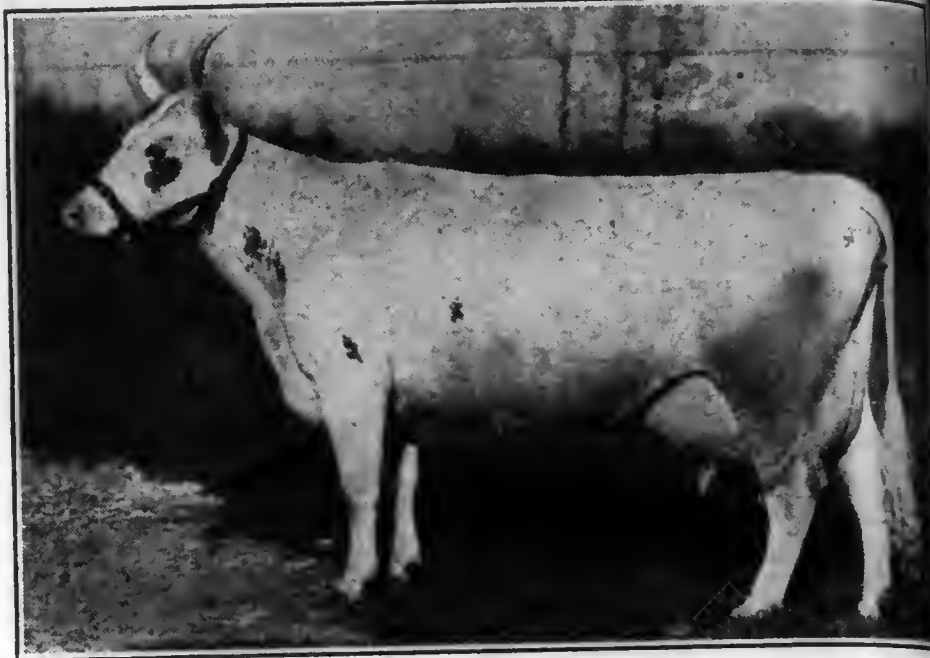
Liberal Discounts—for early orders, for early erection, and for cash.

PRIEST CONCRETE CORP., 201 MERCER BLDG., SYRACUSE, N. Y.

Cheap as Wood! Durable as Concrete

The Priest Silo embodies these features:—
Lowest Prices—Modern methods of manufacture and distribution make the delivered, erected price no more than the final cost of a wood stave silo.
Permanence—Reinforced concrete staves with steel frames for doors and roof—all backed by a written ten-year guarantee.
Improved Construction Features—Matched staves with complete tongue-and-groove on sides, top and bottom; an improved method of distributing pressure between stave and hoop; and other inventions of George E. Priest, the dean of concrete silo builders.
Quick Erection—2½ days puts up an ordinary sized silo, by a crew of four trained, efficient workers.

SEND FOR FREE FOLDER



LETO'S FAVORITE BETTY OF HILL TOP, a West Virginia-bred Ayrshire, broke the senior four-year-old record in her breed with a production of 16,669 pounds of milk and 676.67 pounds of butterfat in 306 days. She gave birth to a heifer calf just 369 days after her previous calving. This cow, a senior four-year-old Ayrshire, was bred at Hill Top Farm, Wheeling. The herd at this farm was later presented to Keyman Memorial Farm in Hardy county, at which experiments are conducted by the University and the U. S. Department of Agriculture. Six weeks ago, her record practically completed, the Ayrshire was sold to Percival Roberts, Jr., of Narberth, Pa., owner of the Penshurst herd.

Farm and Dairy

By L. W. LIGHTY

A FEW hundred years ago a careful observer wrote, "Tillage is manure." But long before that and ever since the good and successful farmer knew and has known that maximum crops season after season are grown by tilling the soil thoroughly and completely.

George Clark of the cutaway harrow fame very conclusively proved that the old Jethro Tull adage "tillage is manure" was true.

I have used tillage implements, hand power, horse power and gas power, for half a century, and I am very sure we cannot do too much tilling for crop increase if we do it intelligently, but we do more than is profitable.

To draw the line between profitable and unprofitable tillage is not an easy matter. In a season when weather and moisture conditions are all favorable comparatively little tillage will suffice, but unfortunately we cannot foresee the weather conditions and therefore considerable tillage is often a good insurance against unfavorable weather. The man who plants and sows in a rough and unprepared seed-bed is taking a much greater risk

than the one who carries no insurance against fire or storm, because unfavorable weather conditions are much more common than destruction by fire or storm.

With our modern tillage implements a dollar's worth of tillage to the acre may make a 20 per cent difference in the crop yield, but again it may make much difference. My experience and observation assure me it pays exceedingly well to prepare the seed-bed thoroughly for every crop we plant. This is doubly true with the crops we inter-till as the corn or potatoes.

Cultivator Equipment

In my early days of farming I had endless trouble to secure the cultivator or teeth or shovels I desired to use for different tillages. Today the desired shovels are easy to get.

For the first cultivation when the plants are small the cultivator teeth should be narrow, slim and long, we may loosen up the soil for the air to penetrate and warm up a degree for best growth. A narrow tooth enables us to work close to the plant, which is of course desirable for weed destruction and several other reasons.

After one or two of these deep cultivations the roots will penetrate readily into the space between the rows and those roots should be disturbed as little as possible in later cultivation. Instead of the sharp pointed teeth it is advisable to use blunt pointed shovels with floating wheels so as to disturb the soil only as much as at very most two and yet completely destroy all the weeds and a loose covering of soil over the tire area. I found in a slaty or gravelly soil these blunt shovels should be narrower than in a soil free from small flat stones. But if we have right shovels in good order we can do a very satisfactory job in most kinds of soil.

Since I relinquished the large and confine myself to the flower and vegetable garden, using of course hand power tools, I found I had purchased two hand cultivators before I could adapt them to my method of cultivation, but I am the more thoroughly convinced it is correct, using them a number of years, and later the blunt pointed floating wings are used to the depth of more than an inch, while the hoe is very little. These principles from the hand power wheel hoe to two-row cultivator.

UNADILLA SILOS are Strong

...they are made of sound, close-joined, tight-jointed and seasoned wood. They are anchored firmly to the ground. They are so constructed that they weather-high-winds.

Send for catalog Today and see how easy it is to get a real cash discount. Time payments taken if desired.

Tubs, Tanks, Vats.

UNADILLA SILO COMPANY
Box P Unadilla, N.Y.



EDWARDS METAL ROOFING

PROTECT and beautify your home and your roofing troubles will be over for good. Weather-proof, fire-proof, lightning-proof, and proof, they last as long as the building. Cost, you must have because we control everything from the raw material to the finished roof and sell direct to you at factory prices.

BEAUTIFUL—PERMANENT—ECONOMICAL
Painted or galvanized steel or genuine rust-resisting copper-bearing steel. Styles for all purposes. Shingles (individual or in clusters or Spanish Tiles). Sheets (plain or corrugated, standing seam, or v-crimped).
Write for Free Samples and Factory Prices. Annual price low cost. Easy to install. Fully guaranteed. Thousands of satisfied customers are our best advertisement. Ask for Roofing Book No. 1991.
The Edwards Manufacturing Company
5331-5331 Butler St. Cincinnati, Ohio (47)



SENSATIONAL NEW FILLER

THE New Ross Cutter & Filler is mounted on any standard tractor with direct power connection to the tractor. It saves more than three hours make ready on each job. Blower pipe may be positioned before arrival. Pays for itself in one season of custom filling. Write today for full details.

ROSS Cutter CO., Springfield, Ohio
(Established 1850) 107 Warder St.

ECONOMY SILOS

STORM-PROOF
The Economy Silos are built to last. Patented Storm-Proof Anchor equipment is supplied with each silo. Prevents tilting, twisting, collapsing. Storm-proof and permanent.
Equipped with either the continuous small self-adjusting doors, or swinging flap doors.
Economy Silos are made of best grade steel. Long Leaf Yellow Pine. Also galvanized steel and cement stave. And for free catalogs.

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Buy now. Pay later

A MONEY MAKER
Better feed—lower costs—more profits. Booklet "Users Own Words" written by owners proves it. Write for free copy. Write your name and check below terms for illustrated folders.
The Ross Cutter & Silo Co.
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Established 1850

Silos Stanchions
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DR. SPENCER'S BULL TAMER
Tames 'em all. For every bull in stall, barnyard and pasture. Thousands in daily use. 30 days money back F.E.E. trial. Write today for the facts.
Spencer Brothers, Inc., Box 59, Savona, N.Y.

C. T. A. Reports

BUCKS COUNTY

Group No. 1

THE Bucks County Cow-Testing Association finished its second year, March 1, 1930, with twenty-one whole-year and two part-year members. The total number of cows for all or part of the year was 550.

During the year 147 unprofitable cows were sold, and most of them were replaced by pure-breeds.

The results for the two years' testing are as follows:

| Year | Av. No. Cows | Lbs. Milk | Lbs. Fat |
|------|--------------|-----------|----------|
| 1929 | 363.18 | 8144 | 320.4 |
| 1930 | 408.74 | 8395 | 327.1 |

Fifteen herds with an average of five or more cows exceeded an average production of 300 lbs. of butterfat. A complete list of these herds follows:

| Owner | Breed | Lbs. Milk | Lbs. Fat |
|---------------------|------------------|-----------|----------|
| J. P. Canby & Son | R.H. | 11976 | 402.8 |
| C. R. Powell | R.H. | 11412 | 409.9 |
| L. P. Satterthwaite | R.G.H. | 11176 | 376.9 |
| Joseph Briggs | R.G.G. | 8312 | 369.2 |
| R. E. Atkinson | R.J. | 7075 | 359.9 |
| J. W. Halliwell | R.G.H. & G.G. | 10014 | 355.0 |
| E. B. Morris | R.G. | 6945 | 345.1 |
| Willard W. Wright | R.G. & H. | 10065 | 338.0 |
| M. C. Satterthwaite | R.G. & H. | 9765 | 338.2 |
| Charles A. Rowe | R.H. | 9983 | 328.9 |
| A. Satterthwaite | R.H. | 9739 | 313.4 |
| Franklin Briggs | R.H. | 9368 | 311.1 |
| Newlin F. Hogeland | R.G. & H. | 8806 | 310.6 |
| Wallace E. Stephens | Mixed | 7228 | 306.7 |
| H. W. Halliwell | R.H. | 8865 | 302.7 |
| Clarence Daniels | W. F. Greenawald | | |

Tester: County Agent.

BUCKS COUNTY

Group No. 2

THIS Bucks County Association finished its seventh year, March 1, 1930, with twenty-one whole-year and four part-year members. The total number of cows for all or part of the year was 456.

The result for the seven years' testing is as follows:

| Year | Av. No. Cows | Lbs. Milk | Lbs. Fat |
|------|--------------|-----------|----------|
| 1924 | 247.46 | 7724 | 294.3 |
| 1925 | 390.68 | 7549 | 271.3 |
| 1926 | 406.35 | 7552 | 281.1 |
| 1927 | 366.07 | 7686 | 311.5 |
| 1928 | 358.56 | 7879 | 313.8 |
| 1929 | 363.18 | 8214 | 331.8 |
| 1930 | 291.74 | 8161 | 310.0 |

Fourteen herds with an average of five or more cows exceeded an average production of 300 lbs. of butterfat. A complete list of these herds follows:

| Owner | Breed | Lbs. Milk | Lbs. Fat |
|------------------|------------------|-----------|----------|
| M. C. Permar | R.G. & H. | 12168 | 419.2 |
| W. Hunsberger | R.G. & H. | 11982 | 414.6 |
| Clayd Myers | R.G. & G. & L. | 8584 | 396.3 |
| P. W. Smith | R.G. & G. | 7436 | 364.4 |
| Nicholas Guetter | R.H. | 9973 | 348.9 |
| Isaac Gross | R.H. | 7509 | 343.7 |
| W. D. Yoder | Mixed | 8890 | 324.3 |
| George S. Haynes | R.G. | 6430 | 322.5 |
| J. S. Stover | R.G. & H. | 8390 | 311.8 |
| W. A. Twining | R.H. | 8989 | 310.1 |
| C. L. Wilkinson | R.G. & H. | 9515 | 302.8 |
| H. A. Bishop | R.G. & H. | 8837 | 301.1 |
| F. W. Oehle | R.G. & H. | 8387 | 291.5 |
| Nervin Weiler | W. F. Greenawald | | |

Tester: County Agent.

Columbia County

THE Columbia County Cow-Testing Association finished its first year, April 1, 1930, with 22 whole-year members. There were 383 cows in the Association during all or part of the year.

Below is given the average production per cow for the five high and the five low herds in butterfat production:

| | Lbs. Milk | Lbs. Fat | Above |
|---------------------|-----------|----------|----------|
| The five high herds | 9098 | 379.4 | \$161.71 |
| The five low herds | 5933 | 211.9 | \$0.37 |
| Difference | 4063 | 166.5 | \$161.34 |

Eleven herds with an average of five or more cows had an average production of over 300 pounds of butterfat.

| Owner | Breed | Lbs. Milk | Lbs. Fat |
|-----------------|------------------|-----------|----------|
| H. B. Role | R.H. | 12222 | 407.0 |
| J. H. Long | R.G. & H. | 10890 | 391.7 |
| W. J. Fairchild | R.G. & J. & R.H. | 9061 | 383.5 |
| R. R. Zimmerman | R.G. | 7180 | 367.9 |
| Frank Hayman | R.G. | 6214 | 313.1 |
| State Hospital | R.G. & H. | 9477 | 336.9 |
| Fred Hillier | R.H. | 9148 | 329.8 |
| Carl Stevens | R.G. | 6906 | 329.2 |
| Roland Seely | R.G. | 6719 | 322.7 |
| Harry Andrews | R.G. | 6213 | 314.9 |
| William Yapple | R.G. & G. | 6507 | 311.2 |
| Harry Lindemuth | P. G. Niesley | | |

Tester: County Agent.

Ball bearings protected against rust and corrosion as well as 6 other important improvements

on the

New Golden Series DIE LAVAL CREAM SEPARATORS

Ball bearings throughout, protected against rust and corrosion, are only one of seven new features which make these new De Laval the world's finest separators. You never took hold of a separator that turned so easily—try one and satisfy yourself. And when it comes to clean skimming, convenience of operation, beauty of design and finish, and durability, nothing can approach these new "3,000,000" Golden Series De Laval.

Other new features are trailing discharge bowl, "V" shaped channels on spouts to guide streams straight, self-aligning worm wheel and spindle, improved oil overflow, extended shaft for attaching motor or power drive, and two-length crank on the larger sizes.

These new De Laval must be seen to be appreciated. Your De Laval dealer will gladly let you try one. Trade in your old separator as part payment on one of these new machines and you will be set for life on cream separators.

The De Laval Separator Company
New York 165 Broadway Chicago 600 Jackson Blvd. San Francisco 61 Beale Street

LEADCLAD ROOFS

The Big Issue

When you put on a roof, whether it be on the house or one of the farm buildings, the big issue is "how long will it last?" If the roof is of ordinary metal, you anxiously await the first sign of rust, and it won't be long in coming. Then the cost of painting every year or two.

For more than twenty years Leadclad roofs have been giving rustproof, fireproof, carefree service on thousands of homes and buildings throughout the nation. Being rustproof, they need no paint, and once applied the roof is off the mind for generations.

The difference is in the coating. Leadclad is copper bearing steel with a thick heavy jacket of Pure Lead...and you know lead can't rust.

Ask your dealer today or write us for a free booklet giving complete information on Leadclad.

LEADCLAD

Manufactured Solely by
WHEELING METAL & MFG. CO.,
Wheeling, West Virginia

Farmer's Business Letter

ANOTHER week of warm weather, with occasional showers, has speeded up corn planting, and it is estimated that nearly two-thirds of the acreage in this early in May. In the more northern parts farmers are holding off till a little later, though the ground is practically all plowed and fitted. In general, it is called the most nearly ideal spring for farm work within memory.

However, economic conditions on farms are bad, as they are in cities. Bank failures continue, business is at low ebb, and farm prices are low with the apparent trend lower. In some places there are many farm foreclosures. People now seem to be looking forward to a hard summer. The only bright spot at the moment is the opening up of employment on public works. Farmers are being appealed to by men out of work, but they are in the market for labor in only a limited way.

Hog Trade

The hog market showed weakness the first half of this week, but picked up later with the average price of the week just a little higher than last week—\$10.10 against \$9.95. Runs were heavier early in the week than later. Eleven markets had just about as many hogs as a week ago. The hog market continues in a rather sensitive condition, which is more or less typical of all markets at this time. It is easily overloaded, and as quick to decline on liberal runs as it is to advance on short runs. Prices are running a little over a dollar below a year ago, but are a little higher than a year ago.

Both fresh and cured pork are moving into consumption at a fairly satisfactory rate, at the present level of prices. Export trade is called fairly good. While storage stocks are well under a year ago, packers are reluctant to accumulate pork because they do not have confidence in the future market.

Trading in the futures market was very light this week, with the trend a little lower than last week. Light hogs for September delivery sold at \$10.15; 10.25; medium hogs for September delivery at \$10.10; heavy hogs at \$10.00; and at \$10.10 for September delivery. Buyers and sellers were far apart in their ideas, with buyers having the upper hand.

Lambs Higher

The lamb market opened strong this week and closed at a decline, just the opposite from last week when prices worked steadily higher. The situation, however, is much better than a few weeks ago. At the close prices were about 25 cents above a week ago, with all kinds of sheep scarce and selling at prices called steady.

Top lambs this week brought \$11.50 against a top of \$11.10 last week. Receipts this week at leading points were smaller than last week but still well above the same week of recent years. Lamb is moving into consumption in good shape. Eastern demand for lambs for slaughter being strong.

A review of the lamb situation says that so far as new-crop lambs are concerned, the prospects are still none too encouraging. Unless a near-miracle takes place there will be plenty of lambs to come after the first of June.

Cattle Lower

Following a steady opening cattle trade weakened off this week, and closed with steer prices 25 to 50 cents lower, and other kinds fully 50 cents lower. Steer average at \$11.40 was only a nickel lower, but lowest since June, 1927. Receipts here at 43,000 were 4,000 under a week ago, but some larger than the same week a year ago. Top heavy steers this week brought \$14.75, and yearlings \$13.65. The bulk of sales were at a range of \$10.15 to \$12.65, against \$12.55 to \$14.35 a year ago and \$12.15 to \$14.15 two years ago.

Beef continues to sell slowly on a week to lower market, since it is higher than most competing foods. At the present time there is a lot of discouragement regarding the summer market, with most people in the trade predicting lower prices. This feeling is based on the business situation. This feeling is also reflected in the lack of demand for feeders, though grass is good with promise of an abundant crop. With a decent kind of cattle costing \$11 or better to lay down at home few are disposed to take a chance on their purchase.

Weakness in Grains

Grain markets fluctuated within narrow limits this week, with the trend

lower. In corn, a new low price for the crop season was touched, with both the May and July options selling at a fraction over 77 cents. Foreign advices are that the producers of this continent can expect only a limited export demand for wheat, even during the coming crop year, unless our season's yield should be materially reduced through drought. At the present time conditions are good throughout our wheat growing sections.

A report shows a great increase in wheat production of the Texas Panhandle, an area made up of 26 counties. The wheat acreage in this section is estimated at from 2,000,000 to 2,500,000, as compared to 1,163 acres in the 26 counties as recorded in the 1925 United States census report. The 1929 estimated production was 40,000,000 to 45,000,000 bushels, which may go as high as 55,000,000 bushels in 1930.

A winter wheat crop of 525,070,000 bushels this season, compared with 578,336,000 in 1929, was forecast in the crop report just issued. Condition was put at 76.7 per cent, compared with 83.6 per cent last year. Area remaining for harvest was put at 38,676,000 acres.

The rye crop was estimated at 46,831,000 bushels, compared with 40,629,000 bushels a year ago.

Condition of other crops was given as follows: Oats, 62.3 per cent; potatoes, 74.2 per cent; peaches, 44.5 per cent.

Chicago, May 10, 1930. Watson

Produce Market Quotations

PHILADELPHIA
Butter.—Higher than extras, 33¢; 34¢; 35¢; 36¢; 37¢; 38¢; 39¢; 40¢; 41¢; 42¢; 43¢; 44¢; 45¢; 46¢; 47¢; 48¢; 49¢; 50¢; 51¢; 52¢; 53¢; 54¢; 55¢; 56¢; 57¢; 58¢; 59¢; 60¢; 61¢; 62¢; 63¢; 64¢; 65¢; 66¢; 67¢; 68¢; 69¢; 70¢; 71¢; 72¢; 73¢; 74¢; 75¢; 76¢; 77¢; 78¢; 79¢; 80¢; 81¢; 82¢; 83¢; 84¢; 85¢; 86¢; 87¢; 88¢; 89¢; 90¢; 91¢; 92¢; 93¢; 94¢; 95¢; 96¢; 97¢; 98¢; 99¢; 100¢; 101¢; 102¢; 103¢; 104¢; 105¢; 106¢; 107¢; 108¢; 109¢; 110¢; 111¢; 112¢; 113¢; 114¢; 115¢; 116¢; 117¢; 118¢; 119¢; 120¢; 121¢; 122¢; 123¢; 124¢; 125¢; 126¢; 127¢; 128¢; 129¢; 130¢; 131¢; 132¢; 133¢; 134¢; 135¢; 136¢; 137¢; 138¢; 139¢; 140¢; 141¢; 142¢; 143¢; 144¢; 145¢; 146¢; 147¢; 148¢; 149¢; 150¢; 151¢; 152¢; 153¢; 154¢; 155¢; 156¢; 157¢; 158¢; 159¢; 160¢; 161¢; 162¢; 163¢; 164¢; 165¢; 166¢; 167¢; 168¢; 169¢; 170¢; 171¢; 172¢; 173¢; 174¢; 175¢; 176¢; 177¢; 178¢; 179¢; 180¢; 181¢; 182¢; 183¢; 184¢; 185¢; 186¢; 187¢; 188¢; 189¢; 190¢; 191¢; 192¢; 193¢; 194¢; 195¢; 196¢; 197¢; 198¢; 199¢; 200¢; 201¢; 202¢; 203¢; 204¢; 205¢; 206¢; 207¢; 208¢; 209¢; 210¢; 211¢; 212¢; 213¢; 214¢; 215¢; 216¢; 217¢; 218¢; 219¢; 220¢; 221¢; 222¢; 223¢; 224¢; 225¢; 226¢; 227¢; 228¢; 229¢; 230¢; 231¢; 232¢; 233¢; 234¢; 235¢; 236¢; 237¢; 238¢; 239¢; 240¢; 241¢; 242¢; 243¢; 244¢; 245¢; 246¢; 247¢; 248¢; 249¢; 250¢; 251¢; 252¢; 253¢; 254¢; 255¢; 256¢; 257¢; 258¢; 259¢; 260¢; 261¢; 262¢; 263¢; 264¢; 265¢; 266¢; 267¢; 268¢; 269¢; 270¢; 271¢; 272¢; 273¢; 274¢; 275¢; 276¢; 277¢; 278¢; 279¢; 280¢; 281¢; 282¢; 283¢; 284¢; 285¢; 286¢; 287¢; 288¢; 289¢; 290¢; 291¢; 292¢; 293¢; 294¢; 295¢; 296¢; 297¢; 298¢; 299¢; 300¢; 301¢; 302¢; 303¢; 304¢; 305¢; 306¢; 307¢; 308¢; 309¢; 310¢; 311¢; 312¢; 313¢; 314¢; 315¢; 316¢; 317¢; 318¢; 319¢; 320¢; 321¢; 322¢; 323¢; 324¢; 325¢; 326¢; 327¢; 328¢; 329¢; 330¢; 331¢; 332¢; 333¢; 334¢; 335¢; 336¢; 337¢; 338¢; 339¢; 340¢; 341¢; 342¢; 343¢; 344¢; 345¢; 346¢; 347¢; 348¢; 349¢; 350¢; 351¢; 352¢; 353¢; 354¢; 355¢; 356¢; 357¢; 358¢; 359¢; 360¢; 361¢; 362¢; 363¢; 364¢; 365¢; 366¢; 367¢; 368¢; 369¢; 370¢; 371¢; 372¢; 373¢; 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1322¢; 1323¢; 1324¢; 1325¢; 1326¢; 1327¢; 1328¢; 1329¢; 1330¢; 1331¢; 1332¢; 1333¢; 1334¢; 1335¢; 1336¢; 1337¢; 1338¢; 1339¢; 1340¢; 1341¢; 1342¢; 1343¢; 1344¢; 1345¢; 1346¢; 1347¢; 1348¢; 1349¢; 1350¢; 1351¢; 1352¢; 1353¢; 1354¢; 1355¢; 1356¢; 1357¢; 1358¢; 1359¢; 1360¢; 1361¢; 1362¢; 1363¢; 1364¢; 1365¢; 1366¢; 1367¢; 1368¢; 1369¢; 1370¢; 1371¢; 1372¢; 1373¢; 1374¢; 1375¢; 1376¢; 1377¢; 1378¢; 1379¢; 1380¢; 1381¢; 1382¢; 1383¢; 1384¢; 1385¢; 1386¢; 1387¢; 1388¢; 1389¢; 1390¢; 1391¢; 1392¢; 1393¢; 1394¢; 1395¢; 1396¢; 1397¢; 1398¢; 1399¢; 1400¢; 1401¢; 1402¢; 1403¢; 1404¢; 1405¢; 1406¢; 1407¢; 1408¢; 1409¢; 1410¢; 1411¢; 1412¢; 1413¢; 1414¢; 1415¢; 1416¢; 1417¢; 1418¢; 1419¢; 1420¢; 1421¢; 1422¢; 1423¢; 1424¢; 1425¢; 1426¢; 1427¢; 1428¢; 1429¢; 1430¢; 1431¢; 1432¢; 1433¢; 1434¢; 1435¢; 1436¢; 1437¢; 1438¢; 1439¢; 1440¢; 1441¢; 1442¢; 1443¢; 1444¢; 1445¢; 1446¢; 1447¢; 1448¢; 1449¢; 1450¢; 1451¢; 1452¢; 1453¢; 1454¢; 1455¢; 1456¢; 1457¢; 1458¢; 1459¢; 1460¢; 1461¢; 1462¢; 1463¢; 1464¢; 1465¢; 1466¢; 1467¢; 1468¢; 1469¢; 1470¢; 1471¢; 1472¢; 1473¢; 1474¢; 1475¢; 1476¢; 1477¢; 1478¢; 1479¢; 1480¢; 1481¢; 1482¢; 1483¢; 1484¢; 1485¢; 1486¢; 1487¢; 1488¢; 1489¢; 1490¢; 1491¢; 1492¢; 1493¢; 1494¢; 1495¢; 1496¢; 1497¢; 1498¢; 1499¢; 1500¢; 1501¢; 1502¢; 1503¢; 1504¢; 1505¢; 1506¢; 1507¢; 1508¢; 1509¢; 1510¢; 1511¢; 1512¢; 1513¢; 1514¢; 1515¢; 1516¢; 1517¢; 1518¢; 1519¢; 1520¢; 1521¢; 1522¢; 1523¢; 1524¢; 1525¢; 1526¢; 1527¢; 1528¢; 1529¢; 1530¢; 1531¢; 1532¢; 1533¢; 1534¢; 1535¢; 1536¢; 1537¢; 1538¢; 1539¢; 1540¢; 1541¢; 1542¢; 1543¢; 1544¢; 1545¢; 1546¢; 1547¢; 1548¢; 1549¢; 1550¢; 1551¢; 1552¢; 1553¢; 1554¢; 1555¢; 1556¢; 1557¢; 1558¢; 1559¢; 1560¢; 1561¢; 1562¢; 1563¢; 1564¢; 1565¢; 1566¢; 1567¢; 1568¢; 1569¢; 1570¢; 1571¢; 1572¢; 1573¢; 1574¢; 1575¢; 1576¢; 1577¢; 1578¢; 1579¢; 1580¢; 1581¢; 1582¢; 1583¢; 1584¢; 1585¢; 1586¢; 1587¢; 1588¢; 1589¢; 1590¢; 1591¢; 1592¢; 1593¢; 1594¢; 1595¢; 1596¢; 1597¢; 1598¢; 1599¢; 1600¢; 1601¢; 1602¢; 1603¢; 16

ECLIPSE FARMS, Port Trevorton
CHICKS —24 BREEDS—
1. GREUGEL. —10 each and up
Per 100 free
DAILY

When buying shrubs, choose some that have colored berries in winter.



The soil, Pennsylvania's endless natural resource, is ministered by the farms which call for electricity.

A NEW RURAL PENNSYLVANIA CALLS US...

PENNSYLVANIA is a leader in mining, manufacturing and commerce. Basic even to these is her agriculture, in which she stands in the front rank with 200,000 farms on which are a population of over 900,000 producing an income of over \$1,000,000 per day. She is also great in forestry and recreational opportunity, with about one-third of her area covered with beautiful mountains offering healthful recreation for her people and inviting tourists by the millions. These two basic industries, agriculture and forestry, with their related recreational value, are calling for electric service.

It is our desire and responsibility to make electricity the servant of all the people... We have pledged the faith of the electrical industry to help create this new rural Pennsylvania. We have been co-operating with the leaders

of the farm organizations for over three years in an effort to better adapt our methods and service to rural conditions. We have already built 9,610 miles of rural line, serving 129,647 rural customers... of which 31,353 are farmers.

The day of the lamp and hand power is past... it is being replaced by modern electric light and motor power. No community can prosper and grow without hard surface roads, good schools, churches and electric service, since these are necessary for economical production and satisfactory living.

Schools and roads are provided through heavy local taxes and state subsidies. We are taking electric service to rural districts at our own expense without adding to the tax burden of the rural people and are furnishing electric current at the same rate per kilowatt-hour in the country that is

charged in town. We ask only that rural customers agree to make a general use of the current. Through the economy of large generating units and inter-connection of electric systems, coupled with advanced engineering practice, we are able to furnish current at rates which make it economical to use electricity for over 200 operations about the farm and home for light, heat and power.

In order to inform the rural people of Pennsylvania what electricity is actually doing in thousands of rural homes and on the farms of Pennsylvania, we are running a series of advertisements, of which this is the first.

Ask the person who has electric service, and he will tell you that in terms of fuel saved, drudgery ended, efficient production, and more satisfactory living conditions...

"IT COSTS MORE TO DO WITHOUT ELECTRICITY THAN TO USE IT"

Published in the interest of Rural Electrification by the

Bradford Electric Company
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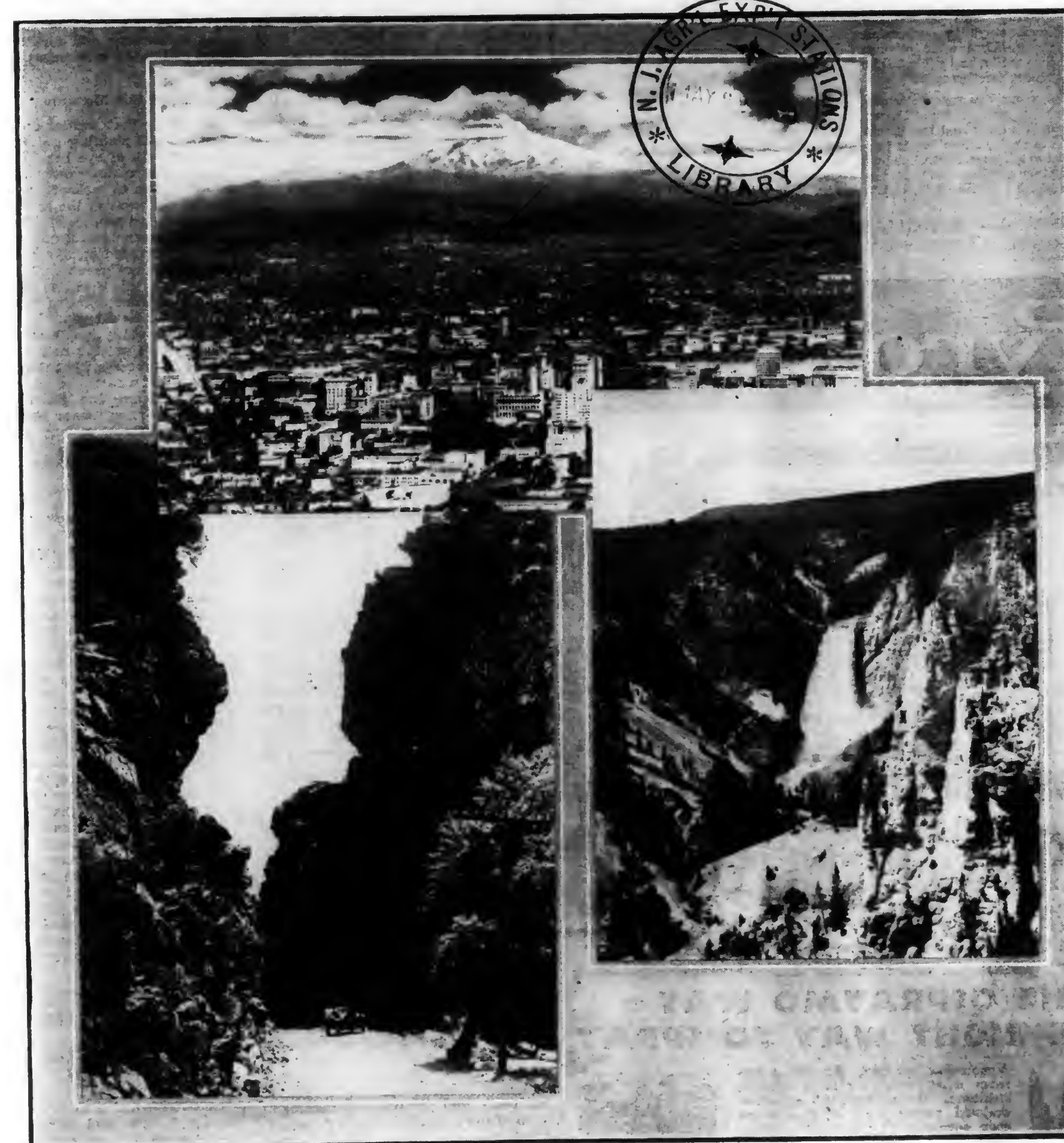
PENNSYLVANIA FARMER

Published
Weekly

Established
1877

Consolidated with PENNSYLVANIA STOCKMAN and FARMER

May 24, 1930



SCENES ON THE ROUTE OF THE PENNSYLVANIA FARMER PACIFIC NORTHWEST TOUR (See Page 8.)
Above—Portland, Oregon, with its sentinel Mount Hood. Left—Giants Gateway, entrance to Denver's Rocky Mountain Parks. Right—The great Fall of the Yellowstone, twice as high as Niagara.

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Pittsburgh

Harrisburg

Grower Insures 100-Acre Potato Crop with Pyrox

USED Pyrox on my 100 acres of potatoes this season and dug approximately 150 bbls. per acre, entirely free from rot, and suitable for fine seed," writes Mr. Frank L. Longstaff of Island Falls, Me., under date of December 10, 1929. He says: "Experience has proved to me that proper spraying is potato insurance through the entire growing season. I find that Pyrox mixes more easily than home-made bordeaux, stays in suspension for many hours after mixing, spreads readily, and sticks to the plant most satisfactorily."

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easy to use. Does not clog nozzles. Economical because it goes far, gives complete protection. Packed in sizes to suit every need. Now priced lowest in 31 years. See your dealer now, or write us for the free Pyrox Spray Guide. Learn how Pyrox can help you get bigger yields and more profit from all crops.

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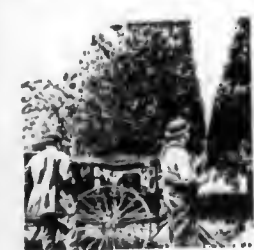
Writes J. E. Meyers, of West Salem, Ohio: From the day he started using Stanley's Crow Repellent, his crow, gopher, mole and other corn field pest troubles were over. But be sure you specify Stanley's Crow Repellent. "It is the only kind I have used with complete success," writes S. Shepherd, West Townsend, Mass. Non poisonous. Will not clog

seed planter. Safe. Sure. A 20 year's successful record. Large can, enough for 2 bu. of seed-corn (8 to 10 acres) \$1.50. Half size can \$1.00. If your hardware, drug, or seed store doesn't have it in stock order direct. "Money Back" guarantee. Address: The Cedar Hill Formulae Co., Box 500R, New Britain, Conn.

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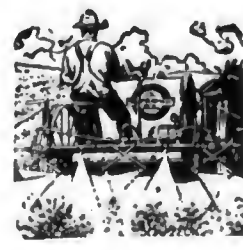


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Farm Facts and Fancies

By ALVA AGEE

L. H. GODDARD, "Farmer," claims right to membership in the association of owners of "homely farms." After serving the Ohio Experiment Station so usefully for many years he went to the U. S. Department of Agriculture, but now finds solid satisfaction in managing and doing much of the work on a 360-acre place that he likes to call "Antique Farm." The size of this farm, in a section of Ohio where corn is the leading crop, caused me at first to think that the owner didn't belong, but really the size and value of a farm has nothing to do with the matter.

Sticks to Horses

Mr. Goddard has no tractor on this large farm. Although two hundred acres are planted to crops each year, he uses only horses. He says that they do not consume a great deal of merchantable feed, and that they "seem to enjoy living along with us." The profitable use of a tractor demands a well-drained farm, and while this farm is as well drained as the average of its section a heavy investment of cash would be required to drain it thoroughly.

The Cropping Scheme

Our friend says: "Limestone and sweet clover are the mainstays for improving the soil. We sow about one hundred acres of sweet clover a year, with oats as a nurse crop, but we do not cut the latter except what we need for hay. Makes fine pasture. We plow about the same amount of ground per year, or a little more, and sow enough of it to soy beans to balance up the corn that grows on the other part."

The owner, with one man, does nearly all the work on this farm except in case of husking corn, cutting fodder and harvesting of soys, when extra labor is employed.

Admitted on Probation.

Mr. Goddard, whom I should class as a farming expert, brags a bit about his old fences and cheap car, but he admits that the tenant house which he converted into a residence for himself is now equipped with heat, light, power, plumbing, etc., but he incurred this expense for comfort and not for show, and it belongs to the credit side of his claim.

Doubtless the old fences are good enough to keep other people's livestock out of his corn-fields and, as is much more important, to keep his own stock out of neighbors' fields. There may be undue pride in the cheap car, and more hard labor is done than some charter members would approve.

Life's Satisfaction

I am quoting from a personal letter but the lesson taught may justify it. The most interesting point is that hustling efficiency experts, with plenty of capital invested in corporation farming, can hardly drive a level-headed man out of competition in farming. Nearly one-third of the farm going into sweet clover every year insures soil fertility, and the seeding on stalk ground isn't expensive. Where five-sixths of another third of the farm grows corn, and there is additional acreage of soy beans, to balance up the corn for feeding, and there is only a small charge for labor except of one man by the year, and if livestock harvests much of the sweet clover, the risks are small and the certainties are substantial. The owners of homely farms will be sticking around in this country for a long time, and if they are living as they wish to live they have most people beaten to a frazzle.

Fertilizing Potatoes Heavily

It is a long time since Ohio's noted farmer, Mr. T. E. Terry, grew pota-

toes so successfully and profitably without the use of any commercial fertilizer. He saved manure carefully and grew clover. Conditions have changed in many ways, and the best money today is being made by those who fertilize very heavily.

Some growers stick to the old ways and do not get what they should out of the crop. We may skimp on fertilization of staple crops and get by in a fashion, but the potato pays for all the soluble plant food it wants more surely than it pays for half enough. It has a short season of growth, and it gets the greater part of its food out of the row in which it grows, if we may judge by the effect of row fertilization. It cannot wait for plant food.

Successful potato growers, taken as a group, are as up-to-date as any specialists in farming in this country. They put a lot of money into seed, machinery and fertilizers, and must match the investment with that of skill.

Soil Moisture

We know that partial crop failure often follows planting ground after a heavy growth of rye has been turned under. The claim now is that the failure is due to lack of available nitrogen, the store in the soil being exhausted in the process of decay of the mass of green rye. Summer fallowing is condemned on the ground that it causes loss of organic nitrogen.

Granting all that we should on these scores, one wonders why so little emphasis in recent years is placed on the soil moisture supply and its control. We are getting new knowledge about soil processes, but the old truth remains that a satisfactory amount of moisture during the growing period of a plant comes nearer being a controlling factor than any other one thing. A poor soil in a "seasonable" year does surprisingly well.

The Summer Fallow

I like once a year to say something in favor of the old-time summer fallow. It is in bad repute in modern days and needs a friend. I have in mind the owners of poor fields that are growing chiefly some wild stuff which is not worth while. When such land is broken in late May or early June, and is left rough, weeds are killed. A second plowing early in August brings the top soil back to the surface where it belongs. The ground is put into condition to hold moisture and all this time some plant food has been coming available.

Usually such land needs lime. If September is not exceptionally dry we come to seeding time with a good moisture supply and that is half the battle in starting a grass sod in small grain. A complete fertilizer is required, but the summer fallow has paved the way for the sod that the field needs. It is a good way of bringing poor, unproductive, semi-abandoned land back into the road to productivity, and partly because it helps to a supply of moisture when most needed.

Carrots for Horses

Please tell me through your paper if carrots are good for horses. If so, how do you feed them? M. N. E. Barbour county, W. Va.

CARROTS make an excellent feed for horses and are especially helpful when it is necessary to carry horses along in high condition. They should not be fed in large amounts to hard worked horses; twelve to fifteen pounds per day is a liberal allowance. Carrots may be fed either whole or sliced, care being taken if they are sliced not to get a slice too large to be swallowed or too small to be chewed. F. L. Bentley.

Orchard Windfalls

By S. W. FLETCHER

THE proceedings of the seventy-first annual meeting of the State Horticultural Association of Pennsylvania now are being distributed by Secretary R. H. Sudds of State College. This is a volume of 260 pages, which reports the addresses and discussions of an unusually interesting meeting. Some of the subjects considered are: bee keeping and fruit growing; common and cold storage for fruit; apple grading and packing; various spraying problems; thinning; the best varieties to plant. Send the \$2.00 membership fee to the Secretary, or join your County Horticultural Society.

In Paradise

"The fruit grower was spraying. It was a lovely, sunny day, with only enough air to drift the spray cloud away from the outfit. The ground was clear of weeds, rocks and prunings and firm enough not to mire the wheels. The limbs of the trees did not scrape off oil cups or bend the levers as he passed along, and the foliage and fruit were at just the correct stage for the application. The engine had started at the first turn of the crank and was purring smoothly, enabling the well-oiled pumps to keep the pressure bumping against the maximum. His spray tank did not leak or plug nor was there any slop from around the lid. His hose seemed to move about easily and gracefully without kinking or catching on obstructions, and his spray gun delivered a beautiful cloud of steam-like quality without dripping or sputtering or clogging. None of the spray was blown back into his eyes. In fact, everything was perfect and he sang blithely as he worked.

"Well might he bubble over with joy; the truth is, he had died and was now in heaven." (From the Bulletin of The Crop Protection Institute.)

Apple Grades

The fruit growers of the eastern states, as represented at the recent conference in Washington, very wisely decided not to urge the United States Department of Agriculture to make radical changes in the present United States Standard Grade for apples. These grades have proved quite satisfactory as they are. A few minor modifications may be desirable, but the evidence is quite convincing that the major requirements are fair, and that they are working out for the interest of the fruit industry. The fact that a steadily increasing number of carlot shipments of Pennsylvania apples have Federal-State inspection shows how the growers feel about it. But some way should be found to avoid the damning term, "No. 2," and to secure uniform grade designations for the entire country.

Horticultural Show

The Farm Products Show Management will feature the horticultural exhibit in the new building next winter. An effort will be made to secure a large competitive display of greenhouse flowers and ornamentals, including ornamental nursery stock, and to use these to embellish the fruit and vegetable exhibits, as is done in the annual Horticultural Show at State College, in October. S. W. Fletcher has been appointed Director of Horticulture, and will seek to coordinate the fruit, vegetable and ornamental exhibits into an attractive whole. Each of these departments will have a superintendent, as heretofore. Since the meetings of the State Horticultural Association will be held in the same building, it will be possible to use the exhibit material more freely for demonstrations than formerly. It is expected that the fruit exhibit will be stimulated by the recent action of the Farm Products Show Management in approving the recommendation of the State Horticultural Association that all exhibits remain the property of the exhibitor.

THREE FARMS that are real BARGAINS...

PENNSYLVANIA Washington County

Arnold L. Hopp Farm, No. 2495—200 acres.—Located in very good community, 3 miles northeast from West Alexander, railroad and trolley at West Alexander, 2 miles from railroad station Vienna (Goon Island), bus transportation over National Highway from either West Alexander or Vienna, makes easy transportation near. Country school only few rods distant and 3 miles to high school. Available markets at Washington, Pa., market distance from Wheeling, West Virginia, which is 16 miles from West Alexander on National Highway. Suburban Wheeling, extends to within few miles of farm. Contains 40 acres in pasture, 110 acres suitable for cultivation, 50 acres uncultivated. Buildings consist of 4-room dwelling, tenant house, barn and other buildings. The soil is clay, shale, stony loam and adapted to dairy or general stock farming. Sale Price \$30,000. Cash \$1,200.

PENNSYLVANIA Erie County

Fred E. Trimm Farm, No. 10538—85 acres.—Located on public road 2 miles from concrete road; 3 miles north of Keepville and about 5 miles west of Albion, the nearest city. 3 miles to nearest railroad and shipping point, 1/2 mile to nearest school and 2 miles to nearest church. Contains 56 acres tillable land, 20 acres in pasture and 10 acres in woodland. The buildings consist of main dwelling, main barn and other outbuildings. Adapted to the growing of corn, potatoes, oats, hay, etc. The soil is clay loam and of good fertility, watered by wells. Sale Price \$2,000. Cash \$400.

PENNSYLVANIA Lehigh County

John Schwab Farm, No. 13394—85 acres.—Located in good farming section, close to market, 1/4 mile from Leather Corner Post Road, which is of concrete construction; 3 miles to Seagorville, the nearest railroad station; 1/2 mile to the nearest school and 1/2 mile to the nearest church. Contains 85 acres suitable for cultivation, and 10 acres of woodland. The buildings consist of a 2 1/2-story, 11-room frame dwelling in good condition, barn, pig pen, wagon shed and straw shed. Soil gravelly, especially adapted to trucking. The farm is watered by wells and a good spring, and adapted to the growing of corn, wheat, buckwheat, hay, oats, cabbage, tomatoes and especially potatoes. Sale Price \$5,800. Cash \$1,200.

Complete List of other Farms in Maryland, Virginia and Pennsylvania sent on request.

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THE SECOND ANNUAL STRATHGLASS SALE

at the Farm TUESDAY, JUNE 10th

Affords Ayrshire breeders and those interested in founding herds an exceptional opportunity to buy the best, 25 Head of the outstanding young males and females selected from our herd, which now numbers over 300 head, and 25 bulls selected from the best herds in Scotland and imported especially for this event are selling. The Strathglass Sale guarantees, as to health, soundness and breeding adds materially to the value of this opportunity. STRATHGLASS FARM, A. H. Tyron, Mgr., PORT CHESTER, N. Y. (25 miles from New York City.)

All cows and heifers of milking age in the STRATHGLASS AYRSHIRE HERD

8 or more months in the year 1929 averaged 9,551 lbs. milk, 388 lbs. fat, mature equivalent 418 lbs. fat and 4.06% test.

A pamphlet picturing many of these cows and some of their progeny will be sent free to any one who will write for it.

PUBLIC SALE OF AN ENTIRE HERD OF Twenty-Seven Head of HOLSTEIN CATTLE

3 Miles East of Centre Hall, along State Highway Route 45
WEDNESDAY, MAY 22,

Herd consists of 8 Reg. Cows, 16 Reg. Heifers, 2 Reg. Bulls, 2 Reg. Heifers, 2 years old, will be fresh by time of sale; 3 Reg. Heifers, 1 year old; 4 Reg. Heifers, Born since Oct. 1st; 1 Reg. Bull, 8 mos. old; Grade Heifer 1 year old, 2 Grade Heifers, born since August 1st.

These cattle are above the average in type and production. The breeding is along the best and most popular lines. In type we aim to have a straight top line, stand up well on hind feet—an animal good to look at, as a thing of beauty is a joy forever.

HERD FULLY ACCREDITED FOR 7 YEARS. In production these 14 cows produced over 10 tons of milk in March, that was delivered to the local milk station. The daily milk production of any other herd of cows whose milk is delivered to any of the 5 nearest milk stations. The Cow Testing Association records for the month of April show an average daily production of 50.3 lbs. of milk per cow per day. The individual production record is from a 10-callon can of milk per day, down.

SALE STARTS PROMPTLY AT 1:00 P. M. Refreshments will be served on the premises by the Ladies' Aid Society.

JOHN SNAVELY, CENTRE HALL, PA.

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they help you get the most out of life and save you time and trouble doing it.

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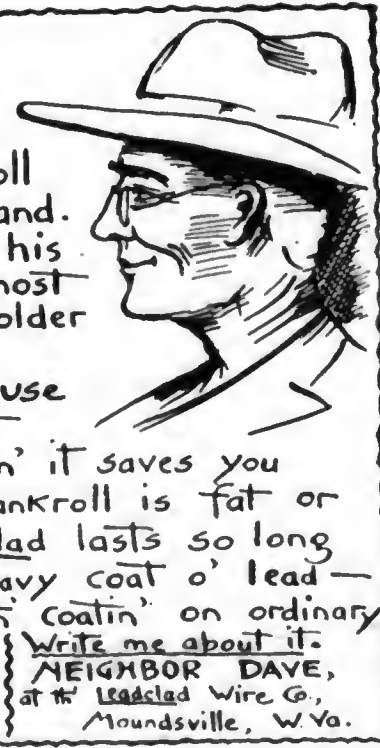
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Gentlemen: Please send me above booklet B.

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"Th' bigger th' bankroll
th' tighter th' rubber band.
My friend Bill says it's his
experience, too, that most
big bank rolls got a holder
that's tight.
That's th' kind generally use
Leadlad, though, for it
saves 'em money. An' it saves you
money, whether your bankroll is fat or
been reduc'n'. Leadlad lasts so long
because o' th' thick, heavy coat o' lead
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Write me about it.
NEIGHBOR DAVE,
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The Economy Silo is built to last. Patented Storm-Proof design. Equipment with either the continuous small self-cleaning doors, or swinging single doors. Economy Silos are made of best grade Oregon Fir or Long Leaf Yellow Pine. Also silos of Glazed Tiles and Cement Staves. Send for free catalog.

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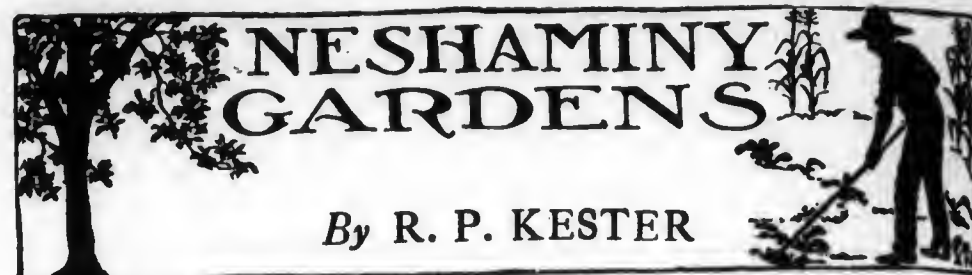
are built of reinforced concrete staves that are perfectly smooth and of a smooth density. Fire, Moisture and Decay-proof.

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Write for descriptive literature. POTTSTOWN CEMENT BLOCK CO. Box 185, Pottstown, Pa.

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I WAS leafing through the large illustrated catalogue of a big manufacturing company today. Every article in it was something for use in a modern home, and was operated by electricity. If such a catalogue had been placed in my hands when I was a boy it would have seemed more marvelous than were the tales I read of Aladdin and his lamp. But I notice my grandchildren look at these pictures and accept them in a matter-of-fact way. The things they represent are in their every-day experience.

As I laid the catalogue aside I fell to reminiscing. I went back in memory to the homes I knew best half a century ago. Not a single thing offered in the attractive book was in grandfather's home or our own home, for the simple reason they were not made, nor even thought of. Today, when you call at any modernly equipped residence you first push a button and an electric bell rings in some part of the house. A member comes to the door, turns a switch and you are admitted into an electrically lighted hallway. In fact every room in the house may be flooded instantly with light. If the evening is very warm an electric fan may be started, or, if the room is too cool, an electric heater is as quickly and easily set in operation. The house is kept clean by an electric cleaner. The clothes are washed by electric power. Toast is made and coffee prepared by electricity, and in many homes the entire meal is cooked by electricity. After returning to the sitting room some one turns on an electric radio and the best things in the world may be had by the simple turn of a dial.

Well, in those earliest homes I knew not a single one of the above pleasures and conveniences existed. How would the present age get along if they suddenly were all wiped out? We would probably spend more time in bed, as our grandfathers did, which might be a good thing for us to do. But the changes inside the home are little if any greater than those about the farm and farm buildings. The only piece of farm machinery on my grandfather's farm in his day was an old-fashioned threshing machine. It was a four-horse sweep affair. The power was furnished by four horses hitched, tandem fashion, to four "arms" centering in a big flat power wheel having cogs around the outside. A driver armed with a long whip stood in the center on this flat wheel and kept the horses to their duty. A two-piece "tumbling shaft," coupled together by a universal joint, conveyed the power to an "under-shot" cylinder placed near the door inside the barn. There was no "shaker" and no cleaning attachment, so the grain and chaff had to be run through a fanning mill afterward. These two machines were the only things in the way of farm machinery grandfather ever owned.

I think it is a good thing for us to measure our progress and our blessings sometimes by glancing back once in a while over the way the race has come, else we take too much for granted. If we were, by some misfortune, to be deprived of all the farm machinery invented and adopted since grandfather's day it would require the work of all the men in the United States from now until Christmas to gather in the coming harvest.

I write this on "Mother's Day," and while writing the above notes on the changes which have been made within my lifetime, I am reminded that one feed and breed.

thing, the most important in any home,—mother love—has not changed. Thank God for that!

Friendly Talks

By
Edgar L.
Vincent

ONCE more experience has proved that a great many times our worries have nothing behind them except a big fear. When the Mediterranean fruit fly first came to one of the states farthest south, we all thought we were going to be eaten up alive by this new and hungry pest. My! What an awful thing that was! We saw our orchards stripped bare and our fruit prospects ruined. We imagined that after the fruit trees were gone the fly would keep right on and not stop until it had devoured all other trees and crops of all kinds. But see what has happened. Not a fly left in the South they tell us; and what is more the northern states never were in a bit of danger from this pest, for it cannot live where the mercury gets lower than 50 degrees. We had all our worries for nothing.

Our Worries Are Ghosts

Now, I do not say that we are never to pay any attention to our forebodings. There is more than a little truth in what a man said to me one time. I met him on a crowded train. We were speaking of this very thing. My seatmate said, "You've got to worry sometimes. You'll never get anywhere on the farm if you don't."

But it seems to me that man did not exactly mean worry when he said that. He meant that we need to use all due forethought and take all possible means to prevent things from going wrong. We are bound to watch the clouds and get our hay in if it looks like rain. We must fight borers and flies when they come. We cannot hope to succeed unless we plan and put the best there is in us into everything.

But that is not necessarily worry. Worry is like the wear that comes to a machine that is not oiled when it ought to be. Faith in one's own self and trust in the Supreme Power are the oil we need to save us from going to destruction.

Treatment of Asparagus

ASPARAGUS is a rather heavy feeder, having a vigorous and far-flung root system. It is best to fertilize in spring. This year's crop will be affected practically not at all since food for that was stored in the roots last fall. But fertilizer applied now stimulates the 1930 top growth and the 1931 crop will benefit.

If stable manure is used, it should be well rotted to avoid the introduction of weed seeds. A commercial fertilizer in which the three figures showing percentages of nitrogen, phosphoric acid and potash are nearly equal may be used. It should be applied at the rate of a pound to every six or eight feet of row.

Asparagus planted in 1923, if it grew well that year and last year, may be cut a while this season, not too long, about three weeks. Cut clean during that time. Older plantings are usually cut seven or eight weeks and they also should be cut clean, stalks not usable being discarded. N. Y. College of Agriculture.

More Readers on Farms in Pennsylvania than Any Other Farm Paper

PENNSYLVANIA FARMER

Published
Weekly

Established
1877

Consolidated with

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Vol. 102

Pittsburgh, Pa., May 24, 1930

No. 21

Small Producers' Problems

By GEORGE F. JOHNSON

WHILE specialized producers, here and there throughout the state, are marketing products by the car or truck loads, still we have in Pennsylvania probably 100,000 farmers who market at least some portion of their products at certain periods of the year on a very small scale. It is perhaps no exaggeration to say that these farmers carry annually to market, in their buggies, wagons, small trucks, or automobiles, produce worth \$50,000,000.

Unfortunately this form of marketing is too often inefficient because the products are brought to market in such small quantities and because normally there is no regular supply of any one product for sufficient time to build up a definite trade outlet.

Are modern marketing principles of grading practical under such circumstances? Can such small-scale production and marketing be tied up successfully with the chain stores, for example?—that of the chain stores, for example? A few decades ago "trading in" farm produce for groceries at stores was a universal practice. The system carried through from one generation to another because it was practical even though it did not encourage the production of higher quality products. It was a great convenience and accommodation for busy farmers. It was a dependable outlet. It was a system which readily adapted itself to the seasonal nature of the small producer's supply.

At the present time, the retailing system in Pennsylvania has changed considerably from that prevailing a few generations ago. The most significant change is that brought about by the introduction of chain stores and associations of independent grocers which now operate on a large scale. This reorganization of local retailing raises several interesting questions.

Will such organized retailing become as important in the twentieth century marketing system for local producers in Pennsylvania as the country stores were in the marketing arrangements of the past century? In other words, will the chain stores assume those responsibilities which have been so widely performed in the past by country stores? In all probability the marketing methods of many Pennsylvania farmers will have to be revised considerably before they can properly fit into the present picture of food retailing.

Roadside Markets

The consolidation of management in retail food stores affords unusual marketing opportunities for large scale local producers, but in doing this it also brings producers, particularly the small ones, into greater competition with larger producers in other parts of the nation and world. It brings about a competition in which production of uniform quality available in quantity is the criterion. Obviously, thousands of small producers have been handicapped.

In view of this situation it is not surprising that farmers have grasped other marketing opportunities. Roadside markets, for example, have increased in number greatly during the past decade and are proving practical; they function best during the summer and fall when farmers have produce to sell, if at any time during the year. It is to be regretted, however, that some farmers are making only a half-hearted attempt at roadside marketing, giving little attention to grading and

packaging the produce. Such conditions and practices have disappointed many urban customers who have since gone back to the attractive city stands of California fruit and southern vegetables.

The increase in number of market houses in towns and cities throughout the state, which with the automobile and truck is extending the marketing outlet for farm producers, is a second important development. While market houses have been a part of the marketing system in Pennsylvania since colonial times, present-day popularity of these markets is indicated by the fact that more than \$1,000,000 of private capital have been expended in the construction of new markets during the past few years.

The established markets in Pennsylvania today, numbering more than 130, offer the largest single direct marketing operation in the United States. But here again it must not be assumed that all marketing by farmers through these markets is efficient. Not long ago, the Bureau of Markets of the Pennsylvania Department of Agriculture secured from farmers detailed items of expense in marketing 628 loads of produce in Carlisle, Reading and Erie. This astonishing fact was revealed: More than one-third of these loads were valued at \$30 or less, even in the summer and fall seasons, and the selling expense, not including the cost of hauling to and from the market, was approximately one-fifth of the entire value of the load.

Such conditions prompted Bureau officials to say that the selling costs of small loads is high and if



Convenient price sign and attractive fruit at roadside market, Lancaster county.

is no argument against the farmers' markets, but it should discourage the practice of bringing extremely small loads to retail market houses.

Value of Quantity

The whole situation, whether it be marketing in a farmers' market house, selling to a chain or association of retail stores, resolves itself very largely into one thing: marketing in quantity. This makes possible some standardization of the product. Chain stores are demanding and will continue to demand well-graded, high-quality products in quantity. The whole chain store system is based on these principles and executives will search the land for a quality product that can be bought in quantity. The writer has noticed Maine potatoes and Oregon apples being sold at times in chain stores in the very heart of Pennsylvania producing sections during the local harvesting season.

It is no doubt true that a little more specialization and more cooperation would work wonders in improving marketing methods in Pennsylvania.

Many commercial fruit growers and potato raisers in the Commonwealth now regard the chain stores and associations of retailers as a distinct asset in their marketing program. They have made the proper connections and much to their surprise have found the buyers for these stores easier to deal with than many of the independent retailers.

We have small groups of dairymen cooperating to supply towns and cities with milk. Why not have small cooperative marketing units to supply groups of local chain stores or other outlets with well graded eggs, fruit, potatoes, etc.? These cooperatives might arrange to have stands in market houses, and sell produce the same as individual farmers do now. They might also establish roadside markets at favorable locations along main traveled roads.

Potatoes are being produced for sale in Pennsylvania at the rate of about 100 bushels per farm and eggs at the rate of approximately 400 dozens per farm annually. The cooperation of 30 average farmers would make available for market the production of 3,000 bushels of potatoes which could be readily graded and sold accordingly. In like manner, cooperation of 30 farmers would give a supply of some 12,000 dozens of eggs which again could be marketed on a strictly graded basis and to greater advantage than

(Continued on page 18.)



Fruit packing house and roadside market, Mt. Parnell Cooperative Fruit Association, Franklin county, Pa.

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APPLE MARKETING

LAST week a committee of fifteen, representing the principal apple growing regions and growers' organizations, met in Washington at the call of the Federal Farm Board to discuss future operations under the Agricultural Marketing Act. No official report of the meeting has appeared so far, but current report is to the effect that the committee was of the opinion that the best thing the Federal Farm Board can do about the marketing of apples is to let it alone.

IN THE DARK

IT is known that the Grain Corporation, the agency of the Federal Farm Board, has a vast amount of wheat. Nobody knows how much it has, for its transactions in buying and selling are not made public. The natural tendency is to exaggerate the amount, and if it is overestimated every holder of wheat is bound to suffer thereby. There is not a single sound reason why a public agency, operating with public funds, should be permitted to work in secret. There is every reason why it should be required to publish its transactions promptly and regularly. A few years ago farmers' organizations were demanding that the light be turned on those who were supposed to be working in the dark. Why not turn it on those who are known to be working in the dark?

A PUBLIC SERVICE

THE Department of Agriculture renders a conspicuous public service when it tells the world that both white and whole wheat breads are wholesome foods. It is high time that science corroborates human experience in regard to bread, meat and some other things. Let us hope that science will find that pie, strawberry shortcake and all the old-fashioned good things are all right when used in proper relation to other parts of the diet. We are again all food fads and faddists. We hope that science and common sense will expose the folly of the fads and the ignorance of the faddists. The best way is to eat in moderation a variety of foods and then forget about it. Nobody can have good digestion if he constantly worries about what he has eaten or is going to eat.

BUSINESS AND CONSUMPTION

A READER wants to know where we get our information about the effect of business and employment on the consumption of farm products. We get it by observation and

PENNSYLVANIA FARMER

by reports from those who handle foodstuffs wholesale and retail. These reports are not in the form of statistics, as there is no system of collecting such information. But they are reliable because they are the actual experience of men in business. There is a very clear relation between consumption and industrial activity. Farmers in mining regions can see it in the demand for their products which are sold at or near home. Those who are more remote from consumers cannot realize it as do those who come in contact with consumers. Unemployment or the fear of it affects first and most the higher priced foods and ultimately all foods, though not all in the same way.

FROM LIFE

A YOUNG farmer who engaged in another business on the side got a terrible jolt. The man whom he trusted to handle the outside business accumulated all the debts and all the cash he could and departed. The young man's first thought was to go into bankruptcy and start again. His second thought was to tell his banker and try to work out with his aid and counsel. The banker went over the whole matter, then sent him to the companies he represented in his outside business. He told the plain truth to all of them. They advised him to go right on and told him they would not press him for their money, as they knew him to be industrious, capable and honest. His character had saved him. He prospered and in due time paid off all his obligations. He has often told us this experience as an example of the fact that character is the real basis of credit.

GUARANTEED WHEAT LOANS

THE provinces of Manitoba, Saskatchewan and Alberta have enacted legislation to guarantee the loans made by the banks to the Canadian Wheat Pool. The Pool borrowed the money for its advances to growers, holding the wheat and giving it as security to the banks. When the price of wheat approached the amount loaned on it the banks demanded protection. The only way for the Pool to pay was to sell the wheat, and the forced sale of so large a quantity would have been disastrous to the price. So the governments of the three great wheat producing provinces were virtually compelled by the situation to guarantee the loans and hope for a market that would allow the wheat to pay them. If the market allows such payment the governments will have lost nothing by their guaranty. If not they must pay whatever difference there is between what the wheat realizes and what the banks have loaned on it. In other words the taxpayers must pay, and in these three provinces most of the taxpayers are wheat growers.

WHY WOOL IS CHEAPER

A READER asks us to tell him why wool is so much cheaper than it was only two or three years ago. A general answer is that the production of wool has been increasing at a time when consumption of it was restricted. In this and several other countries wool clips have increased in recent years. In practically every country other fibres have been substituted because they were cheaper than wool. And such substitutes as cotton, silk and rayon are all cheaper than they were a few years ago, which is favorable to substitution in manufacture and use. Fashion has been unfavorable to free use of wool but it may work the other way in the near future. Important groups of consumers, such as the Russian people, have been unable to buy wool fabrics, at least to buy them freely. The textile industry of the two greatest wool manufacturing countries has been in a bad way for several years. The inability of that industry to operate at a profit has affected the

price of its raw material to some extent, although nobody can say definitely how much any one of the above influences is responsible.

THE PIGEON MYSTERY

IN our issue of April 12 we stated that "genuine wild pigeons" had appeared in large numbers in California, where they were doing much damage to vineyards. Our information was derived from a man just back from California and from articles in the papers of that state. Our statement was promptly and properly challenged, as it indicated clearly that the California pigeons are the passenger pigeons once so numerous in central and eastern states. After some correspondence we now have information which shows that our statement was incorrect. Let us quote from a letter by H. C. Bryant, in charge of education and research in the Division of Fish and Game of the California Department of Natural Resources: "The birds referred to in the newspapers the last few months are band-tailed pigeons, birds which commonly feed on acorns and birds which are limited to the western United States. Band-tailed pigeons were given total protection in 1913, at which time they were found in small numbers, since they had neither season nor bag limit. It has taken them nearly twenty years to appear in sufficient numbers so that there is complaint of damage to agriculture. Please help to refute the mis-statements in magazines which have led people to believe that the passenger pigeon had been refound in California. This is not true. Our western pigeon, however much like the eastern bird, does have a square-ended tail and a black band across the tail which gives it its name." So the fate of the passenger pigeon remains a mystery; but we hope this correction is fair and ample.

TAXATION OF COAL LAND

LARGE areas of farm land in Pennsylvania and West Virginia are underlaid with coal. In some cases the coal has been sold to operating or manufacturing companies, in some cases it remains the property of the land-owner, but in all cases it is taxed. Here arises a problem. There is no regular market for coal acreage. In recent years, since the beginning of depression in the bituminous industry, it has been practically unsalable. Yet taxes must be paid on it every year, sometimes on a high valuation, without the possibility of selling it or getting any return of any kind from it. For the farmer can't sell without buyers, nor can he use something that lies hundreds of feet below the surface of his land. What should be a valuable asset to him threatens to ruin him. He may in fact be taxed into bankruptcy by the mere possession of something which he can neither sell nor utilize.

If the land-owner is not taxed neither can he be taxed the corporations which hold coal for future exploitation or use; and these corporations are now paying taxes on large areas. Any system of deferred taxation, realization taxes to be paid when the coal is sold or used, must apply to corporations as well as to individuals. Such a system would thus leave a current tax burden now shared by the corporations to be borne entirely by the rest of the community.

No solution of this problem is in sight, at least no local solution. Whatever is responsible for the condition of the coal industry in this region is responsible for the serious plight of many farmers who own coal acreage and can neither sell it nor pay taxes on it. The Interstate Commerce Commission cannot escape a part of this responsibility, for it has permitted discrimination in freight rates to lake ports to an extent almost destructive to the northern coal producer and to all owners of coal lands.

AN event of vital interest to farmers is the Farmers' Field Day to be held at the New Jersey College of Agriculture and Experiment Station at New Brunswick, on Wednesday, June 11th.

No farmer can afford to miss this opportunity to visit the Experiment Station and familiarize himself with the research work which pertains to his business and to become acquainted with the men who are conducting this work.

All laboratories will be open to visitors, and the Station staff will be present to explain to visitors the work being done in the laboratories and on the various experimental plots of the College farm.

Bring your various farm problems and questions with you. The extension specialists and research men will be there to help. Don't miss Farmers' Field Day.

RECENTLY I read in a newspaper of a man living near Emporia, Kansas, who while picking burrs from a mule's tail was kicked by the mule and fatally injured. Few farmers show so much confidence in the good humor of a mule, and such carelessness on the part of any farmer as expressed in this case would seem almost incredible, yet every day New Jersey dairymen are exposing themselves to a greater danger by the careless handling of bulls. For years the Dairy Extension Department, newspapers and farm papers have been warning dairymen against careless handling of bulls, and have related many deaths and injuries as a result of this. No owner of a herd sire can afford to take any chances and all such owners should seriously consider construction of a safety bull pen. Any of the county agents will gladly provide plans for such a structure.

"MILLION dollar shower!" Similar captions to this were read in nearly all the New Jersey and Eastern Shore papers after the rains of last Wednesday broke the four-week drought in this section. To estimate the losses caused by the drought and the value of the rainfall last week is almost impossible, but we do know that to many farmers the rain meant the difference between success and total failure. The spell of dry weather during the planting season is the longest which has been experienced for years along the Eastern Shore, and will severely cut the early crop production.

The strawberry crop which a few weeks ago was estimated as a bumper crop will not be more than 50 per cent of normal yield. In New Jersey the lack of rain delayed planting of early tomatoes and retarded germination and growth of all early vegetable crops.

IN order to act on several proposed changes for the supervised class of poultry which is under supervision of the New Jersey Department of Agriculture, all interested poultry breeders are urged to attend the Sixth Annual Certified Breeders' Conference to be held at the State Capitol in Trenton, May 22.

NEW JERSEY farmers are becoming interested in and are supporting the effort to establish definite selling and closing hours for the sale of fresh fruits and vegetables in the Philadelphia markets. Last week the Gloucester County Board of Agriculture adopted the following resolution: "Whereas commission merchants of Philadelphia have passed an agreement to open and close their stores at regular hours to create better business conditions:

"Be it resolved that the Gloucester County Board of Agriculture heartily endorses and advocates such a move and further recommends that our farmer members support by their patronage those commission merchants who will abide by such regulated opening and closing hours."

The Gloucester County Pomona Grange had previously adopted a resolution similar to the above. This week farmer groups in other counties which ship large quantities of fresh fruits and vegetables to Philadelphia will discuss and act upon this move made by commission men to establish definite hours in the market.

New Jersey Farm Comment

By G. W. HARRIS

MARYLAND farm women will gather at College Park from June 16 to 21 for the eighth annual Rural Women's Short Course. Although about the same range of subjects will be covered as in former years, many new speakers of prominence will appear on the program.

Courses will be offered in foods and nutrition, household management, house furnishing, clothing, ornamental gardening, home dairying, poultry, parliamentary law, recreation and music. A new feature will be exhibits of table service, canned products, handicrafts, hooked rugs and farm products.

The programs are divided into class groups, as in previous years, with the addition for an extra program planned for the fifth-year group this year. If all the women eligible return there will be 91 in the fourth-year class to receive certificates, according to Miss V. M. Keller, state home demonstration agent.

THE Second Annual Baltimore Livestock Exhibition will be held at the Union Stock Yards from October 14 to 17. The first show to be held last year was arranged on short notice, but this year early plans are being made for an exhibit even better than their successful show last fall.

Exhibits will be divided into five departments, including fat cattle, boys' baby-beef steers, feeder cattle, fat hogs and fat lambs. In the fat cattle department there will be classes for carload lots, truckload lots and individual steers and heifers. Classes for each of the principal beef breeds are offered in the boys' baby-beef department and the car-load lots of feeder cattle are also divided into

classes on the basis of leading breeds. Fat hogs will be entered in carload lots, pens of five and individual barrows. The sheep department will have three classes, one each for carload lots, pens of not less than ten nor more than 20 and best wether or ewe lamb.

A horse show for pure-bred draft horses and an exhibit of pure-bred beef bulls also is planned. A sale of fat cattle, hogs, lambs and feeder cattle will be held during the latter part of the show.

FARMERS' Marketing Conference will take the place of the usual Farmers' Day at the University of Maryland this summer. This meeting, the first of its kind to be held in the state, will take place at College Park on August 12 to 15. Four days will be spent in a discussion of marketing problems as they relate to the farmer, present market conditions and trends of the markets.

IN the latest issue of "Hints to Potato Growers," the official bulletin of the New Jersey Potato Growers' Association which first appeared ten years ago, Dr. Wm. H. Martin reviews the New Jersey potato industry during that period of time.

He brings out the fact that since 1920 the acreage in potatoes in the state has been reduced from 90,000 acres to about 52,000 in 1930. In Central Jersey ten years ago from 70 to 80 per cent of the acreage was planted with the American Giant variety, a variety of poor quality which brought low prices. At the present time about 90 per cent of the acreage is planted with Irish Cobbler, with about eight per cent Green Mountain and two per cent miscellaneous varieties.

The first tests in the state to compare certified and non-certified seed potatoes were started in 1920. Prior to that time less than five per cent of the seed planted in New Jersey was certified, but in 1930 it is estimated that 95 per cent of the acreage is planted with certified seed.

"Prior to 1920 most of the seed planted in New Jersey came from Maine and New York with a little from Virginia. In 1920, one sack of Prince Edward Island certified seed was planted in the seed source and variety tests in Monmouth county. In 1930, over 75,000 sacks of this seed were planted in the state. In addition seed from Maine, New York, Maryland, Virginia, Vermont and New Jersey is being used for planting."

Doctor Martin shows that the amount of certified seed produced in New Jersey is increasing, that growers are now planting more seed per acre, and that seed disinfection and spraying has become a general practice.

In regard to fertilizer practices he says, "Ten years ago it was the practice to derive a considerable part of the nitrogen from nitrate of soda. When the growers were shown that this increased scab they soon substituted sulphate of ammonia."

"Another development in the use of fertilizer has to do with the introduction of concentrated mixtures. A considerable number of growers are using 10-16-14 rather than 5-8-7 mixture. This is applied at the rate of 1,000 pounds rather than 2,000 pounds per acre and consequently greatly simplifies the planting operation."

STIFFER sentences for convicted chicken thieves are urged in a resolution by the executive committee of the New Jersey State Poultry Association.

The resolution states that poultry thieves, when brought to trial, "often arouse public sentiment and sympathy in their favor so that sentences incommensurate with the extent of their crimes are imposed."

After pointing out that the laws of New Jersey provide adequate punishment for such offenders, the resolution asks "those empowered to dispense justice... to mete out sentences which will discourage poultry thieves and protect an essential food production industry in which many thousands of New Jersey's citizens are engaged."

Activities of poultry thieves, according to members of the poultry association, have caused considerable loss and in some instances even entirely deprived poultrymen of their means of making a living.

It Is Not Too Late for Master Farmer Nominations

Pennsylvania Farmer sponsors the Master Farmer project in order to find and give recognition to men of noteworthy achievement as farmers and rural citizens. Those chosen for the Master Farmer Awards cannot be truly representative of the best in eastern agriculture unless nominated by people in close touch with every rural community. That is why the responsibility of making nominations is left entirely to readers. No publicity and no responsibility is involved; we ask only that you give us the right names. May 31 is the closing date.

As in the last two years, Pennsylvania Farmer and the American Agriculturist are the joint sponsors of the Master Farmer movement in New Jersey. They will cooperate in working with the judges and in honoring the men chosen for the Awards.

THE BOARDS OF JUDGES

The following Boards of Judges will make the final selection of the men to receive the Master Farmer Awards of 1930:

Pennsylvania
R. L. Watts, Dean of the School of Agriculture and Director of the Experiment Station, Pennsylvania State College.
C. G. Jordan, Pennsylvania State Secretary of Agriculture.
John Light, Secretary of the Pennsylvania State Grange.
R. G. Bressler, Deputy Secretary, Pennsylvania Department of Agriculture.

New Jersey
J. G. Lipman, Dean of the New Jersey State College of Agriculture and Director of the Experiment Station.
William B. Duryee, New Jersey State Secretary of Agriculture.
H. E. Taylor, Secretary of the New Jersey Federation of County Boards of Agriculture.

Delaware and Maryland
T. B. Symons, Director of Agricultural Extension, University of Maryland.
C. A. McCue, Dean and Director, Agricultural Experiment Station, University of Delaware.
O. K. Quivey, Agricultural Agent, Baltimore and Ohio Railroad.

West Virginia
John W. Smith, Commissioner of Agriculture, State of West Virginia.
F. D. Fromme, Dean of the School of Agriculture and Director of the Experiment Station, W. Va. University.
Nat T. Frame, Director of Agricultural Extension, W. Va. University.
O. K. Quivey, Agricultural Agent, Baltimore and Ohio Railroad.

Nomination Blank

Master Farmer Editor, Pennsylvania Farmer,
7301 Penn Avenue, Pittsburgh, Penna.

Sir:
I nominate the following as a candidate for one of the Master Farmer Awards of 1930:

Nominee's Name

Address

County State

My Name

Address



On the coming Pacific Northwest Tour we shall leave the land of the Stars and Stripes for a visit to our foreign neighbor to the north. This summer's trip is similar in that respect to last winter's Pennsylvania Farmer Tour when we visited our southern neighbor, balmy Cuba.

This photograph just received was taken by Cuban authorities when some of the 130 members of the Florida-Cuba party visited the splendid exhibits of the well-managed Agricultural Exposition at General Machado, near Havana. The gentleman in white is Mr. Sanchez who was the hospitable host and guide to our party in balmy Cuba. At his right is Mr. Crespo, director of the Exposition. At the extreme left, straw hat in hand, is Mr. Aguilar, another of our Cuban hosts. Mr. Sanchez is head of the plant industry bureau of the Cuban Department of Agriculture—Jefe Sanidad Vegetal, Secretaria de Agricultura, Republica de Cuba.

Questions About the Summer Tour

THE newspapers have been devoting a lot of space to President Hoover's vacation plans for this summer. They say he is going to visit the two great national parks of the Pacific Northwest—Glacier and Yellowstone. What they don't say, but should, is that the members of the Pennsylvania Farmer Pacific Northwest-Glacier-Yellowstone Tour will visit those two great parks just a few days before Mr. Hoover.

As nearly every one knows, the Pennsylvania Farmer Tour this summer not only includes those famous parks with their wild Indians, tame bear, glaciers, geysers, canyons, boiling springs and other natural and unnatural wonders too numerous to mention. It also covers nearly 8,000 miles of comfortable travel in Pullman, automobile and steamship across the plains, the mountains and broad waterways of the northern United States and southern Canada.

It pays a visit to Niagara Falls, Chicago and the Great Pacific Coast cities of Seattle, Longview, Portland, not to mention Spokane and the famed apple valley of Wenatchee whence 20,000 carloads of apples a year roll forth to the world's markets. It calls on our Canadian cousins up in Vancouver and Victoria. It goes to see if Wyoming is still wild and woolly. It pauses in Denver, the metropolis of the Rockies, before going on to Colorado Springs to see if the mountain scenery reveals why the pioneer threatened to "bust" rather than miss Pike's Peak.

But all that, and much more, is set forth in the tour booklet which may be had by mailing the coupon below. Our purpose here is to answer questions that have been asked and to talk about the more prosaic business of getting started on the tour. Once we board the chartered Pullmans of the tour special we can forget our worries. So the first question that should be answered is:

Booklet Contains Full Information

Tour Manager, Pennsylvania Farmer,
7331 Penn Avenue, Pittsburgh, Penna.

Please send full information and illustrated booklets about the Pennsylvania Farmer Pacific Northwest Tour, July 26 to August 10, inclusive. This places me under no obligation of any kind.

Name
Address
Mail the same information to the following who may also be interested:
Name
Address
Name
Address
Name
Address

Where can I join the tour train?

At any of the stations and at the time shown below. You can estimate the cost from the rate shown in the booklet for the town nearest you. When you tell us where you wish to board the train we shall give you the exact figure for that point. Here is the schedule for the start on July 26:

| Pennsylvania Railroad | |
|---|------------|
| Leave Philadelphia, Broad Street Station | 8:45 A.M. |
| " West Philadelphia | 9:15 A.M. |
| " Paoli | 9:23 A.M. |
| " Downingtown | 9:35 A.M. |
| " Coatesville | 9:45 A.M. |
| " Pottsville | 9:55 A.M. |
| " Lancaster | 10:23 A.M. |
| " Mt. Joy | 10:45 A.M. |
| " Elizabethtown | 10:55 A.M. |
| " Middletown | 11:10 A.M. |
| " Harrisburg | 11:37 A.M. |
| " Sunbury | 12:45 P.M. |
| " Milton | 1:00 P.M. |
| " Williamsport | 1:50 P.M. |
| " Lock Haven | 2:30 P.M. |
| " Driftwood | 3:10 P.M. |
| " Renova | 3:57 P.M. |
| " Emporium Junction | 4:31 P.M. |
| " Port Allegany | 5:14 P.M. |
| " Olean, N. Y. | 5:54 P.M. |
| Arrive Buffalo, N. Y. | 8:00 P.M. |
| Leave Buffalo (Michigan Central Railroad) | 8:00 P.M. |
| Pittsburgh and Lake Erie Railroad | |
| Leave Pittsburgh, P. & L. E. Station | 10:00 A.M. |
| " Beaver | 10:32 A.M. |
| " Youngstown, Ohio | 11:40 A.M. |
| " Erie | 2:07 P.M. |
| " North East | 2:47 P.M. |
| Arrive Buffalo, N. Y. | 4:05 P.M. |
| Leave Buffalo | 8:00 P.M. |

The schedule for extreme western and north-western Pennsylvania follows:

Where will tickets for the Pennsylvania Farmer Tour be on sale?

You will need no ticket. When you make your final payment, as explained in the Tour booklet, you will be mailed full instructions together with credentials to be presented when you board the special train. You will need no ticket to board the train. One of the tour managers will be looking for you and will have everything ready for you when you get on.

You call this an all-expense tour. Just what does that mean?

It means that every necessary expense for the round trip is included in the cost which is quoted in the tour booklet. The booklet is being mailed to you and all others who ask for it. A reservation de-

posit of \$20 per person reserves space on the train. A check for the balance of the cost should be made at least ten days before the beginning of the tour. Then you are through paying. The money will be refunded if you find later you cannot go.

It means that you can leave your pocketbook at home. Some one else will do all the worrying, buy all the tickets, pay for all the meals, do all the tipping. The moment you step aboard the special train you shift all responsibility to other shoulders.

My wife and I are 64 and in only fair health. Do you think we could stand the trip?

This trip is longer but no more arduous than the Florida-Cuba Tour which was enjoyed by people ranging in age from three to 75 years. Many of them were over 60 and one man and wife over 70 returned home saying they would join the next Pennsylvania Farmer Tour wherever it might go.

Each person can make the tour as difficult or as easy as he wants to. There are numerous mobile side trips, but plenty of free time has been allowed for rest, shopping or individual sightseeing. You will usually find company if you desire to remain in the train instead of making one of the tours.

Who will be going on the Pacific Coast Tour this summer?

That question is "a little previous." We can answer better two months hence. However, here is a guess based on the inquiries being received by the personnel of the Pennsylvania Farmer Pacific Northwest Tour of last winter. The party probably will consist principally of farmers, active and retired, and their wives. There will also be a considerable number of young people and some business and professional men and women, teachers and others.

Will you give me a reduction in the cost of the tour if I get several of my friends to go?

The announced price of the tour is the exact total of the various items that enter into the cost. There is no margin for discounts or profit. If we allowed you a discount we would be just that much short of the amount due the Pullman Company, etc., for your accommodations.

How much would it cost for us to take our son and daughter with us?

The railroads will allow reduced rates for children who occupy the Pullman section with their parents. We shall be glad to get this for you if you will write giving the age of your child.

What do we do on Sunday while on the tour?

We shall spend our first Sunday morning in Chicago, arriving in plenty of time for church services, sightseeing, or both, and leaving at 12:30 p.m. for Chicago Daylight Saving Time (11:30 a.m. Central Standard Time). A similar arrangement is a stopover for church attendance has been arranged at Spokane, Washington, on our second day morning. Members of the party will be returning home from early morning until late afternoon on the third Sunday, depending on where they

Milly Woodbridge's Trek to the Pacific

The Pioneers of the Peace River Valley

By C. A. Stephens

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SYNOPSIS

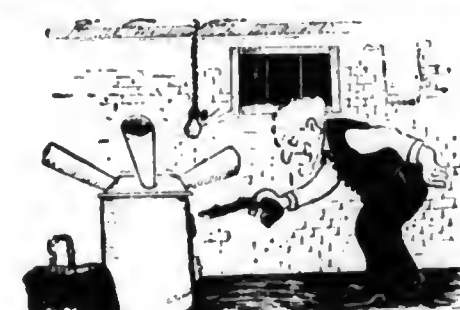
Two New England families, who have gone to the Peace River country in Canada to make homes, find themselves in unfortunate circumstances when the railroad, on which they had based their hopes, is not built near where they have settled. One of the families, the Mastermans, moves away, but the other, the Woodbridges, creates business for the sawmill they have built. The son and daughter advise following the Mastermans' example and go back to civilization while they still have enough money to make the journey, but the father refuses to leave his mill. At last, when it becomes evident that they could not live through another winter on the Peace river, and after their money had been spent, they started to walk across the thousand miles of wilderness, and mountains that stretched between them and the Pacific Coast. With a horse, a cow and later an Indian woman who joins them they cross rivers and forests in slow but determined fashion, living largely on game and fish. The extreme exertion together with wet weather seem to make the father's cough worse until one day he has a hemorrhage of the lungs, losing considerable blood before it stops. Later he seems much better and they go on with renewed courage. One evening the Indian woman, Pinky-Blue, while fishing encounters a grizzly bear and cub.

They might have shot it; but Milly was no doubt wise in dissuading him from so hazardous an attempt. A grizzly, particularly one with a cub, is an ugly customer to risk a shot at. Hunters are usually very cautious in attacking them.

But graver dangers than gray bears now menaced this venturesome little party of home-seekers.

For four days after their adventure at the Black Canon of the Omineca, the Woodbridges went along the river through a generally hilly, wooded country and on the fourth afternoon reached the bank of a good-sized creek, which would have to be crossed next morning.

Here as usual they first fenced their camp site for the night, then put out the Jersey and horse to graze. Afterwards Winthrop went to fish in the creek; and when the squaw had kindled a campfire, Milly sent her up the creek to explore for beaver dams; for, odd as it may seem to



The Cheerful Plowman

THE NORMAL LIFE

THE rain was beating down in sheets, the thunder roaring mad retreats, the lightning crazy with its power was burning up a summer shower, and hallooses big, and round, and mean, with rigor thumped me on the beam.

I was a league or more from home, but might as well have been in Rome, for one mile was as bad as ten. It was no day for traveling men. I saw a small house near the way, a tiny cottage small and gray, so there I plowed through rain and mud and struck the door with thump and thud. The door was opened wide enough to show a wizened face and rough.

"You are a stranger, that I see," chirped out a voice, "you frighten me, so hurry on. I have no place for any unknown stranger's face. You may be here to rob my purse, to murder me or speak a curse; so hurry quickly on your way. I cannot shelter you today. A stranger should not, feet on hoof, expect admittance 'neath a roof." So I plunged on through rain and mud, through hail, and sleet, and storm, and flood.

Now what was wrong with that old lass whose door-step strangers could not pass? Why, only this: she didn't live a normal life of take and give; she all too long had kept herself apart, secluded on a shelf. She had so long shut out the throng that even the good old world along that she no longer could detect the carols from the circus; she could not tell an honest jay from one with shifty eyes, a gentle Abel from a Cain.

Well, thank the Lord, there are but few with that dame's weak perverted view, and thank the Lord this hermit craze is seldom found in modern days. The free and honest, normal brain responds to strangers in the rain; the free and honest, normal heart has no desire to live apart. J. E. T.

many, they had found the flesh of the beaver, either roasted or boiled, more palatable than that of any other game animal found in that region. Beaver colonies abounded there, the lessened market value of their fur having led apparently to a marked increase in the beaver population in this remote place.

Pinky-Blue had been gone half an hour, perhaps, when the report of a gun was heard at a distance, in the direction she had gone, followed immediately by a second report. Milly supposed that Indians or miners might be in the vicinity and gave little heed to the matter; she was busy with her preparations for their supper.

Ten minutes had scarcely passed, however, when the squaw appeared, out of breath, heated from running and in a state of great excitement! She had, she gave Milly to understand, gone up the creek for some distance and had found not a beaver dam but three white men working a large, long "cradle" in the bed of the creek, washing the gravel, evidently for gold. She had come within plain sight of them before she saw them; and they looked up and saw her at the same moment. One of them said something hastily to the others, when instantly another of them snatched up a gun and fired at her. She heard the ball whiz past her face; and, as she ran away, they fired after her again!

Winthrop had now come back to the camp with his fish. "They caught a glimpse of Pinky and mistook her for a deer," he said. "Lucky they did not hit her!" Woodbridge, senior, thought this the more probable explanation. It was not to be supposed that white men would shoot a squaw.

Pinky, however, was in a state of consternation. She was beginning to learn certain English words from Milly. "Killy! Killy! Killy me!" she cried over and over.

"I would better find out about this," Winthrop said. "Of course it is some mistake." He took his gun and set off up the creek. Ere long anxiety so beset Milly that she interrupted her supper preparations and followed after him. Winthrop had proceeded cautiously and after going less than a mile, heard voices and the sound of a "cradle" rocking, also the noise of shovels. Beyond doubt it came from miners hard at work. He moved forward through the woods to the creek bank at a point fifty or sixty yards below, and coming in sight of the men, stood and watched for a few moments. There were three of them, and Winthrop did not wholly like their looks. A tent stood hard by; about it were scattered the usual tinware, tools and other outfit of a mining party. There was no doubt they were gold-seekers; and something in the feverish haste in which they were toiling led Winthrop to guess they had made a rich find there.

Miners are usually rough but honest fellows; Winthrop had little hesitation in hailing them. "Hullo there!" he cried. "Struck it rich, have ye?"

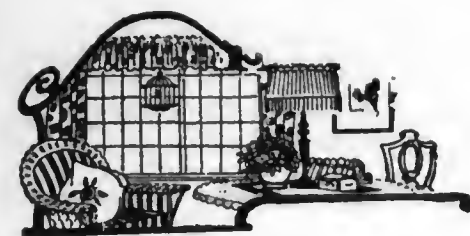
All three men stopped work on the instant and two of them ran to snatch up guns.

"Oh, don't go to shooting!" Winthrop shouted. "I'm a friend. I'm not here to meddle with you."

Winthrop has since said that in all his life he never heard anything like the volley of abuse, profanity and curses with which his wholly friendly salutation was greeted. The burden of it was for him to get out from there on the jump and never show his head there again under penalty of instant death! "Ef we ketch ye here agin, we'll hang ye up by the heels and cut yer heart out!" Winthrop remembered as one of the savage threats they shouted. One of them also fired a shot, but, he thinks, over his head.

EVIDENTLY they had no desire for visitors and Winthrop judged it prudent to beat a precipitate retreat. All the explanation that he or Woodbridge, senior, could hit on for such furious behavior, was that these men had found a bonanza and wished to keep all knowledge of it secret, since it is well known that when tidings of new, rich placers get abroad, a rush of gold-seekers is almost certain to follow. Milly and her brother conjectured that sudden good fortune and the fear of losing it had so excited these wandering treasure-hunters that they would even have committed murder to keep the locality a secret. As they reflected on this, their fears increased lest they might be attacked. First Winthrop and later Milly watched during the night. Twice the latter heard stealthy footsteps in the woods and once Brighteyes jumped up, but these alarms were very likely from bears or other wild animals.

(To be continued.)



When Jelly Will Not Jell

By GERTRUDE S. STEWART

WHILE teaching in one of our splendid cities of the great Northwest (where I hope many of you can journey with the Pennsylvania Farmer tour this summer), I greatly enjoyed the friendship of a delightful Scandinavian woman. She had asked me to stop in for tea after school one hot June day and when I arrived, I found her in a most unusual state of agitation.

"Well, Mrs. Hutton, what is bothering you this afternoon?" I calmly asked. "Oh, dear," she replied in exhaustion, "I bought a case of strawberries to make jelly, and have spent all day for nothing. They just refuse to jell." The boys have had so much to say about the strawberry 'jelly' that Roland's mother gives them for lunch, that I did want some, too."

Mrs. Hutton is a cook supreme but although the fragrance of her kitchen was most enticing the fruit jelly was a sad runny mess. I suggested that she go with me to the nearest grocery, just a short walk distant, and there we bought pectin enough to settle the trouble. In a very few minutes the jelly had jelled, and rows of shining glasses stood on the kitchen table. Then we happily sipped our tea with some jelly tarts thrown in. Her juices simply lacked the jellifying substance known as pectin.

Weeping Jelly—Sugary Jelly

Last year a large number of our readers wrote us inquiring why their jellies were wet and oozy on the top, and others wanted to know why some of their jellies often contain crystals of sugar. To avoid the "weeping," here are four cautions.

Never fill the glasses too full, but leave at least one-half inch for the paraffin seal. Second, let there be no splash of jelly left on the edge of the glass, for if not wiped away clean, the seal cannot be perfect. Third, pour hot paraffin immediately over the hot jelly. Next morning, pour another layer of hot paraffin, this time tipping and rolling the glass so that the hot paraffin will cling well around the edges of the glass and complete a perfect seal. Lastly, avoid jarring the jelly at any time and store in a cool dry place.

Now let's settle the sugar crystals. If they are scattered throughout the glass, the cause is usually too much sugar for the used quantity of juice or pulp. Often crystals form at the top of the jelly because it is not sealed immediately. Let's get the habit of pouring a thin seal of paraffin the minute we have poured the jelly. The mass is then protected against the action of air, as well as from dust and other contamination in the air.

How would you like to eliminate all guess-work from your jelly making this season? Why work all day at a task that can be completed in one hour of well-directed work? Why stir and stir over a hot stove wasting fuel and growing wrinkles all over your tired face when the same jelly can be better made in a short time at very little fuel expense?

We can supply you with a book on jelly-making giving methods and recipes for all the fruits beginning with the luscious strawberry and winding up with late autumn cranberries. These recipes are tried and true. They are easy for they use the short-boil process. The products taste better for the flavor has not all boiled away. The color is perfect for long boiling dulls and darkens. This help will off-set worry, your jelly will jell and your purse will be saved for you are sure of success.

Let us send you this recipe book and with it

another interesting one with illustrated uses to vary the diet with jams and jellies. Please send a strong self-addressed envelope—ready stamped with your request. If there are some other home problems puzzling you, send them right along, and we'll help you if we can. Address your letters to Home Department, Pennsylvania Farmer, 7301 Penn Ave., Pittsburgh, Pa.

Timely Tips

WE make a good chocolate syrup of equal parts cocoa and sugar mixed together, then stirring in gradually twice the amount of water, adding a pinch of salt and, if desired, a little vanilla. Use one-half cup each of cocoa and sugar and one cup of water. This syrup is used in milk, with malted milk for milk shakes, or as a sauce on ice cream or puddings.



Clear sparkling jellies of beautiful transparency are made possible when juices of well-ripened fresh fruits are dripped through bags of cotton flannel. Short-boil methods retain colors which long, slow boiling destroys.

gradually, salt, pepper and a pinch of mustard to season. Then add gradually, beating with egg beater all the while, one cup of a good salad oil. Keep in a covered jar. This makes a delicious, thick, smooth and creamy product.

It is easier to prevent than cure corns on the toes. Whenever there are corns, the feet have not been properly shod. Remember this when buying shoes for the girl of high-school age, for this is often the time when corns first appear. Nowadays a girl may be neatly and stylishly shod, and still keep foot health and comfort.

For the new, beautifully finished sewing machine, make an oilcloth cover to put over it while you are sewing and protect it from scissors, pins, etc. Cut the cover just the size of the machine when open, cut out an oblong where the sewing apparatus comes through.

Space Savers

WE had no place for the many magazines in our house that we want handy when we have a few minutes to read. We have wainscoting in our kitchen and I thought of nailing a shelf across one corner, just above the couch. It solved the problem.

The atomizer stood on a crowded mantel. After it was thrown down and the glass cup broken, I put a little shelf above the one for magazines, and we keep the new one there.

Mrs. W. E. H.

The Innocent Fly Is Attacked

THIS story is one of a series prepared under the Gorgas Memorial as part of its program for Better Health and Longer Life. Dr. Isaac D. Rawlings, Director of Public Health in the state of Illinois, wrote this very rousing story which we hope you will read all the way through, and let the wise counsel guide in an active campaign against the common fly, far too abundant in country homes.

A keg of gunpowder resting quietly in one corner of a warehouse is one of the most harmless looking objects imaginable. The eye of man is so powerful enough to see the tremendous power that lurks behind the dull, black, lifeless appearing color.

Flies are very much like that. To watch a fly crawl across the table or the wall, one can detect nothing but the most innocent looking insect.

Gunpowder is perfectly harmless until it comes into contact with fire or some other heat generating substance. Flies are perfectly harmless until they begin to associate with disease germs. The flies have the worst manners of any living creature. By birth and inheritance they belong with the scum of the earth, but the moment they learn to propel themselves into the habitations of God's most favored creature and they cease to want them and into the inner chambers of the most exclusive homes.

If the human eye were a powerful microscope the feet of a fly which had just returned from one of his filthy debauches would look like a mess. One fly can carry a load of germs big enough to set off an explosion of severity sufficient to shock the life out of a human being. A fly likes to eat at the table with the daintiest housewife, but he hasn't the grace to wash his feet before the meal and he enjoys dipping his fingers into everything that's good to eat before the people get a chance at it.

Fortunately the dastardly character of the fly has been found out so that he can no longer play his evil without being under surveillance. People have learned to attack him in three or four ways. First, they screen their homes to keep him out. Then they deposit waste matter in fly-tight cans or in flush closets so that the fly cannot reach it. They destroy excreta from the sick so that he never get to them. They clean out stables once a week and spread or bury



Rolls

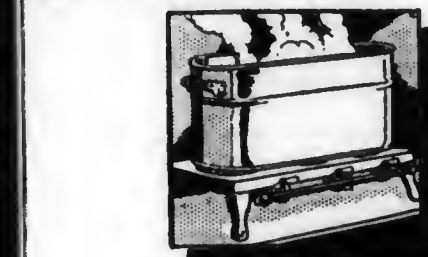
DOUBLE-DECKER rolls made of quick yeast dough, rolled thin, lightly buttered and two rounds baked together in a muffin tin are ideal. To butter the top round can be left off without destroying the roll. Cheese biscuits made of an ordinary baking powder dough to which soft cheese has been added lightly are delightful with hot tea.

To keep the bright color in strawberry preserves, cook rapidly.

Your Laundry Water



and Gas to heat it....



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WATER for washing—soft, clean water! Your one National system pumps from several sources at the same time—direct from well, cistern, stream or lake—any lift up to 150 feet.

And now your National performs a second great service—supplies gas for water heating, room-heaters and for cooking. Gas that's three times hotter than city gas—piped dry and clean into the house from an underground tank outside. Gas at a touch of a match and the turn of a valve, without burners to generate.

Enjoy both fresh, running water and gas for heating and cooking for only 10¢ to 30¢ more than the reasonable cost of a National Fresh Water System alone.

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All birds carefully culled for type and egg laying ability by State Licensed inspectors. All extra booked as received. First come, first served. Order from this ad. Per 100: White, Brown, Buff Leghorns: Anconas: \$7.50; Bred, White, Buff Rocks: S. C. Reds: \$5.00; White, S. L. Wyandottes: Buff, White Ors.: \$9.00; S. R. I. White, Partridge Rocks: \$5.50; Black, White and Buff Minorcas: \$10.00; Assorted Heavy Breeds: \$7.50; Assorted Light Breeds: \$6.75; Oiled and mated: \$8.00. SPECIAL—On orders of 1000 or more deduct 1¢ per chick. TERMS—\$1.00 books order for 100 chicks. We ship balance C.O.D. plus postage. 100% live delivery guaranteed.

CALHOUN CHICKERIES, Box D, Calhoun, Mo.

TWO HELPERS INSTEAD OF ONE IN EVERY BAR That's why

FELS-NAPTHA MAKES WASHING EASIER

WHETHER YOU SOAK OR BOIL YOUR CLOTHES

Wash your own way. Boil the clothes if you like. Soak them if you prefer. But use Fels-Naptha—and you'll get clean, sweet, snow-white washes without hard rubbing!

For Fels-Naptha gives you extra help—any and every way you use it. The extra help of plenty of naphtha, the dirt-loosener, and good golden soap, the dirt-remover. You get two cleaners instead of one in every bar. And working together, they gently loosen dirt and wash it away—in water of any temperature.

Test this extra help yourself. Try Fels-Naptha in machine or tub. For soaking or boiling. In hot, lukewarm or even cool water. You'll find that it works quickly and gets your hands out

of water sooner, which helps keep them nice. Get a few bars of Fels-Naptha—or the handy 10-bar carton—at your grocer's today.

SPECIAL OFFER—We'll be glad to send every user of Fels-Naptha Soap a Fels-Naptha Chipper. Many women who chip Fels-Naptha into their washing machines, tubs or basins find this chipper handier than a knife. Use it and Fels-Naptha to make fresh, golden soap chips (that contain plenty of naphtha!) just as you need them. Send only a two-cent stamp to cover postage, and we'll mail you this chipper without further cost. Write today. Department 7-5-24 Fels & Company, Philadelphia, Pa.

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A New Extremator that Won't Kill Livestock, Poultry, Dogs, Cats, or even Baby Chicks
K-R-O can be used about the home, barn or poultry yard with absolute safety. It contains no deadly poison. K-R-O is made of Squill, as recommended by U. S. Dept. of Agriculture, under the Comstock process which insures maximum strength. Two cans killed 578 rats at Arkansas State Farm. Hundreds of other testimonials.

K-R-O KILLS RATS ONLY

Gapeworm Preventive
Do not allow baby chicks to die of gapeworm. Prevent gapeworm in drinking water before gaps appear. Prevents gaps, does not injure chicks. 75¢ per box. Sold by OREL FISHER, West Newton, Pa.



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and Colonial Coverlets. Made from your own wool. Also sold direct if you have no wool. Beautiful goods that give satisfaction and long wear. Write for catalog and samples. Prices reasonable. WEST UNITY WOOLLEN MILLS, 107 Lynn St., West Unity, Ohio.

"Going to town"

Not so long ago, the trip to town was a momentous event. It took hours. You bought enough to last until the next trip, but it was hit-or-miss buying. Food in open barrels or boxes. Gloves, rubber boots, bolts of cloth and buggy whips thrown together in hopeless confusion. Sometimes you were lucky—but not always. The day was gone when you reached home again.

Now you hop into the car, swing out on the state highway, and speed smoothly to town at forty miles an hour. The store you enter is modern, clean. Buying is a simple matter. You ask for this brand of breakfast food or flour—that kind of shoes or flashlight. Packages and brand names are your guide. You know that you're getting the best products for the least money.

Advertising has simplified the whole process. It has told you the merits of the car you drive, helped you to have good roads to run it over. It has brought you the machinery that lightens farm labor and gives you leisure to get away more often. It has explained the fertilizers that mean more money for your crops. In every way it is continuing to make your life more comfortable and pleasant.

Advertisements pay you in time and money. Read them regularly.

THE YOUNG PEOPLE

Protect the Birds

DEAR Editor:—Here is an essay on birds, how to protect them, care for them and a simple bird house built from cans.

I am a boy who has lived in the country all my life. I go to Dublin High School. Science is one of my favorite studies. We are going to study birds. The past winter we had a bird feeder made and put it outside our window at school. At home I have several bird houses tacked here and there. Carroll Morris, Jr., Maryland.



By Jamarik Agers

Many a boy thinks just because a bird is alive it is a proper target for his air rifle or his sling shot. We are the birds' police, especially the Boy Scouts. After all, what is the value of a bird after it is shot, except a few scientific specimens collected by trained museum experts?

Many a hawk and owl has been killed as a harmful bird because it was seen to capture a young chicken. We should post ourselves on the subject and find that most hawks and owls feed chiefly on field mice and large insects injurious to the farmer's crops.

A band of nuthatches worked all winter in a pear orchard near Rochester until the trees were entirely free from a certain insect that had destroyed the crop of the previous summer. A pair of rose-breasted grosbeaks were seen to feed their nest of young ones four hundred twenty-six times a day, each time with a billful of potato bugs or other insects.

A professor in Washington counted 250 tent caterpillars in the stomach of a dead yellow-billed cuckoo and he found 500 bloodthirsty mosquitoes inside one night hawk.

Many bird boxes can be made in a little while by doing only a little work. They can be made out of tin cans and auto tires. A wren house can easily be made out of a flower-pot. Another way to attract birds to your homes in the summer is by providing drinking fountains and bathing places. A little pool of water protected from cats will be a source of joy to the birds.



By Lella Southall, West Virginia.

About Our Farm

I AM going to tell you about myself. I am 13 years old. I am a Junior in high school. I have one sister; she is 12, and is a freshman.

We each own a Holstein pure-bred cow. They are twins. Mine is "Betsy" and my sister's is "Peggy."

My cow has had two calves. The first one died, and I sold the other one for veal. He weighed 150 pounds.

My sister's cow has had two heifer calves. She calls them "Princess Sylvia" and "Charmaine."

When our calves were two years old, they won second and third prizes at our calf club.

We live on a farm. There are 260 acres on it. We have four horses, 12 cows, five heifers, several small calves, pigs, sheep and chickens.

We have three dogs. One we call "Buddy." She will bring the cows, and she waits every night for us to come from school.

One day in April, four years ago, my Daddy saw a lamb running around in the field. He found its mother, but she wouldn't claim it. He said if we

girls could raise it we might have it. We got a bottle and fed it. We raised it and it is big now. The first time we clipped her we got seven pounds of wool. Succeeding years we have gotten nine and eight pounds each. This spring she had twin lambs. We called them "Tom" and "Jerry." "Tom" was real black. He weighed 95 pounds when we sold him. "Jerry" was neither black nor white. He weighed 93 pounds when sold. They were four months old when sold. We still have the mother. We call her "Cato." She is out all winter. She won't stay with the rest of the sheep. I read the Young People's Page, and enjoy it very much. I know I would miss it a lot, if it were discontinued. Elizabeth Judy, Pennsylvania.

Another Queer Pet

I HAVE the queerest pet that ever was. Can you guess what it is? It is a little pig with a curl in his tail. He is about two weeks old.

When his meal time comes I hold a bowl in front of him, half full of milk and say: "Wac, wac, wac." And he will squeal and run and jump into the bowl, feet and all, and when he has finished he will try to root the bowl over.

The mother pig had four little babies, but she lay on all the others and killed them. I took this one away and kept it from her.

I have been trying to think of a name for him but every one I think of my tongue gets twisted in trying to say it fast, therefore, I call him "Piggie." Melvin John Pierce.

When We Entertain

ONE of the players starts the game by saying "one," the next "two," the next "three," etc., until "seven" is reached, when the word "buzz" is substituted for it. The next player says "eight," and so on, up to a multiple of "seven," or any word in which "seven" occurs, such as seventeen, twenty-seven, thirty-seven, etc.

When "seventy" is reached the counting proceeds as "buzz," "buzz-one," "buzz-two," etc., and seventy-seven is "buzz-buzz." Whenever a player says a number instead of "buzz," or says "buzz" in the wrong place, he must start the game over again by saying "one." The game may also be played by having each player who misses drop out of the game.

Crazy Stories
Cut exciting short stories into paragraphs. Mix and pass out to players seated in circle. One reads paragraph to start and reading continues to left. A queer story results.

He Can Do Little
One player takes a stick in his left hand and thumps the floor with it, saying "He can do little who can't do this." Then he hands the stick to another player, who will probably use his right hand when holding the stick and thumping. If he does, he is told he has failed in the simple task and the stick is handed to another. The game goes on until someone discovers that the secret of the trick is to copy the leader exactly and therefore the stick must be held in the left hand.

Youth's Problems

By Helen Blum, West Virginia
Four-H Club Member

YOUTH in the Eastern Panhandle of West Virginia has laid down the bars between various organizations and regions.

In a recent conference at Charles Town, 130 boys and girls representing Four-H clubs, Hi-Y, Y. M. C. A., Y. W. C. A., Boy Scouts, Girl Scouts, Girl Reserves, high schools and several other groups, met to consider their life problems.

Robert G. Foster, Four-H agent in the eastern states for the U. S. Department of Agriculture, was in charge. Local high school principals, county and home demonstration agents, ministers, Vo-Ag men, Four-H leaders, extension agents and others aided.

Topics Discussed

The topics which the delegates discussed were: "What are some of the things I should know before determining my life's work?" "How am I to know for what life occupation I am best fitted?" "What are youth's experiences, and how shall they meet them?" "What are legitimate experiences of youth?" "How can youth bring about a better understanding between itself and older people?" "Do I need to belong to any organization?" "How can I prepare for my life's work?"

A typical group was that which discussed, "How am I to know for what life work I am best fitted?" It decided:

One may find for what occupation he is best fitted by asking, reading, actual contact and observation. Qualifications: 1. One should like his work. 2. Understand thoroughly what is required of him. 3. Make a self-analysis.

One should consider environment, cooperation and remuneration. Benefits of Conference
Through this conference organiza-

Little Folks' Corner



Drawn by Elsie E. Freeman, Pennsylvania.

COLOR THE PICTURE AND WRITE A STORY

CAN'T somebody tell us what these little girls are doing or why they are wearing such big, big sunbonnets? Color the picture and write a story about it. There will be ten surprise prizes for the best.

Send your letter to Little Folks Corner, Pennsylvania Farmer, 7301 Penn Ave., Pittsburgh, Pa.

YOUR TURN TO WIN A PRIZE

Try your hand at our new contests and win one of the twelve fine prizes offered for the best. Here they are:—

- Cartoons—1. The Kicking Cow.
2. The Balking Mule.

Letters on—

1. Who Would You Rather Be?
Not Yourself?
2. My Most Exciting Adventure.

All letters must be in before May 31. Address Young People's Editor, Pennsylvania Farmer, 7301 Penn Ave., Pittsburgh, Pa.

tions are taught to pull together; the boys and girls learn to think individually; they learn to express themselves clearly and forcefully; and they make new friends.

Officers were elected to prepare for a similar conference next year, the third to be held.

CHATTER-BOX

By Eva L. Hughes

THERE are so very many things that I should like to know: Why is it that a cow has horns That never, never blow?

The elephant has a trunk, and yet The poor thing wears no clothes. The garden has no legs, but many Stores sell garden hose.

I wonder if I'd better do The thing Big Brother said.... I asked him all these questions And he growled, "Go soak your head!"

VACATION TIME

GOOD-BYE, little desk at school, good-bye. We're off to the fields and open sky. The bells of the brooks and woodland Are ringing us out to the vales and dells. To meadows way fair, and hill tops cool. Good-bye, little desk at school.

Good-bye, little desk at school, good-bye. We've other brave lessons and tasks to try. But we shall come back in the fall, you know. And as gay to come as we are to go. With ever a laugh and never a sigh— Good-bye, little desk, good-bye!

Helen M. Rafferty.

PASSING EVENTS IN PICTURES



(Copyright by Underwood & Underwood)

1. New York.—Photo shows "sinkers" that went sink: the electric doughnut machine on board the U. S. S. Texas, which turns out thousands for the sailors on board. Fireman George F. Morris is operating the machine.

2. Photo shows American, Scotch and French Canadians—left to right, Douglas Fairbanks, Harry Lauder, who are both sailing for England, and Maurice Chevalier, who came down to the Mauretania to see them off.

3. Chicago, Illinois.—The whole country was represented in the national baby week

campaign. In one welfare station in Chicago the following lineup appeared: Left to right, Marina Dumit, Syrian; Frederick Piesen, German; Richard Van Der Heyden, Dutch; Dave Solmeyer, Roumanian; and Richard Rother, Spaniard.

4. Chicago, Ill.—The complete Western Television receiver fitted for reception of both sight and sound, the picture is projected from the aperture at top of cabinet onto screen on pedestal in front of set, and can be viewed and heard six feet or more away.

5. Photo shows natives in Palestine using their feet to crush grapes—the juice to be used in the making of wine (for religious purposes). 6. Burbank, California.—Ready to fold up their wings! An excellent shot of the U. S. Army Air Service planes closing their annual maneuvers at the United Airport here, in the presence of about 150,000 spectators. This view was made during the review of the provisional wing by Maj. Gen. James E. Fechet as the maneuvers were directed via radio by Brig. Gen. Wan. E. Gillmore.

MORE PROFIT WITH OVERSIZE CHICKS

SIEB'S CERTIFIED CHICKS

If you want larger stronger stock, more eggs, more meat, and more profit, raise Sieb's "Oversize" chicks. They are all from guaranteed pure bred flocks of the world's finest blood lines. These chicks are especially bred for the business man or woman that raises poultry for profit.

WHY SIEB CHICKS PAY BETTER

It costs just as much to raise a chick that weighs 6 lbs. at 6 months old as it does a chick that weighs 8 lbs. at 6 months old. It also costs just as much to raise a chick that lays 60 to 80 eggs per year as it does a chick that lays 200 or more eggs per year. We have spent huge sums of money developing the finest pure bred quality only—breeding and improving that one quality from year to year, making them grow larger, mature quicker, and lay better, until they have reached perhaps the highest degree of perfection as money makers. Our great capacity of over five million per year and breeding of one quality only cuts down cost and enables us to give you five million chicks at prices even less than many hatcheries charge for 500,000 and 1,000,000 chicks.

Send for FREE catalog or order from this ad. 100% live delivery guaranteed.

| | | | |
|-------------------------|--------------|-------|----------|
| White, Br. Bl. Leghorns | \$2.25 | 500 | \$125.00 |
| White, Br. Bl. Leghorns | \$2.25 | 1,000 | \$250.00 |
| White, Br. Bl. Leghorns | \$2.25 | 500 | \$125.00 |
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SIEB'S HATCHERY, Box 130-A, LINCOLN, ILL.
Members Int'l. & N. B. C. P. Association

KERR CHICKS

Chicks that have the breeding for heavy laying pullets next fall and winter. Over 25% better layers—better than the average of all pens. That's where Kerr's R. I. Red pen stood April 7th in one of the public laying contests.

14% above the average—In Stor's 1930 contest, Kerr's White Leghorn pen stood on April 12th 14% better than the average of all pens.

New Low Prices on Kerr's Quality Baby Chicks

| | | | |
|-------------------------|-----------------------|---------------|-----------------|
| White Leghorns | \$10.00 for 100 | \$3.00 for 25 | \$4.50 for 500 |
| Barred Rocks | \$11.00 for 100 | 5.50 for 50 | 90.00 for 1000 |
| R. I. Reds; White Rocks | 12.00 for 100 | 6.00 for 50 | 100.00 for 1000 |

For Special Matting Chicks add 2c to above prices. Prices effective May 19th.

KERR CHICKERIES, INC.
Department 6, Frenchtown, N. J.

Paterson, N. J.
Trouton, N. J.
Camden, N. J.
Binghamton, N. Y.

E. Syracuse, N. Y.
Lancaster, Pa.
Danbury, Conn.
W. Springfield, Mass.

BUY C-M-L Chicks

C-M-L Chicks cost no more than ordinary chicks from the average hatchery and the quality is far better. We have medallions for years in the big Barron Leghorns, imported direct from Barron. Special May reduced prices. Full live delivery guaranteed. Barron S.C.W. Leghorns, 25-35-50-100-150-200-250-300-350-400-450-500-550-600-650-700-750-800-850-900-950-1000-1100-1200-1300-1400-1500-1600-1700-1800-1900-2000-2100-2200-2300-2400-2500-2600-2700-2800-2900-3000-3100-3200-3300-3400-3500-3600-3700-3800-3900-4000-4100-4200-4300-4400-4500-4600-4700-4800-4900-5000-5100-5200-5300-5400-5500-5600-5700-5800-5900-6000-6100-6200-6300-6400-6500-6600-6700-6800-6900-7000-7100-7200-7300-7400-7500-7600-7700-7800-7900-8000-8100-8200-8300-8400-8500-8600-8700-8800-8900-9000-9100-9200-9300-9400-9500-9600-9700-9800-9900-10000-10100-10200-10300-10400-10500-10600-10700-10800-10900-11000-11100-11200-11300-11400-11500-11600-11700-11800-11900-12000-12100-12200-12300-12400-12500-12600-12700-12800-12900-13000-13100-13200-13300-13400-13500-13600-13700-13800-13900-14000-14100-14200-14300-14400-14500-14600-14700-14800-14900-15000-15100-15200-15300-15400-15500-15600-15700-15800-15900-16000-16100-16200-16300-16400-16500-16600-16700-16800-16900-17000-17100-17200-17300-17400-17500-17600-17700-17800-17900-18000-18100-18200-18300-18400-18500-18600-18700-18800-18900-19000-19100-19200-19300-19400-19500-19600-19700-19800-19900-20000-20100-20200-20300-20400-20500-20600-20700-20800-20900-21000-21100-21200-21300-21400-21500-21600-21700-21800-21900-22000-22100-22200-22300-22400-22500-22600-22700-22800-22900-23000-23100-23200-23300-23400-23500-23600-23700-23800-23900-24000-24100-24200-24300-24400-24500-24600-24700-24800-24900-25000-25100-25200-25300-25400-25500-25600-25700-25800-25900-26000-26100-26200-26300-26400-26500-26600-26700-26800-26900-27000-27100-27200-27300-27400-27500-27600-27700-27800-27900-28000-28100-28200-28300-28400-28500-28600-28700-28800-28900-29000-29100-29200-29300-29400-29500-29600-29700-29800-29900-30000-30100-30200-30300-30400-30500-30600-30700-30800-30900-31000-31100-31200-31300-31400-31500-31600-31700-31800-31900-32000-32100-32200-32300-32400-32500-32600-32700-32800-32900-33000-33100-33200-33300-33400-33500-33600-33700-33800-33900-34000-34100-34200-34300-34400-34500-34600-34700-34800-34900-35000-35100-35200-35300-35400-35500-35600-35700-35800-35900-36000-36100-36200-36300-36400-36500-36600-36700-36800-36900-37000-37100-37200-37300-37400-37500-37600-37700-37800-37900-38000-38100-38200-38300-38400-38500-38600-38700-38800-38900-39000-39100-39200-39300-39400-39500-39600-39700-39800-39900-40000-40100-40200-40300-40400-40500-40600-40700-40800-40900-41000-41100-41200-41300-41400-41500-41600-41700-41800-41900-42000-42100-42200-42300-42400-42500-42600-42700-42800-42900-43000-43100-43200-43300-43400-43500-43600-43700-43800-43900-44000-44100-44200-44300-44400-44500-44600-44700-44800-44900-45000-45100-45200-45300-45400-45500-45600-45700-45800-45900-46000-46100-46200-46300-46400-46500-46600-46700-46800-46900-47000-47100-47200-47300-47400-47500-47600-47700-47800-47900-48000-48100-48200-48300-48400-48500-48600-48700-48800-48900-49000-49100-49200-49300-49400-49500-49600-49700-49800-49900-50000-50100-50200-50300-50400-50500-50600-50700-50800-50900-51000-51100-51200-51300-51400-51500-51600-51700-51800-51900-52000-52100-52200-52300-52400-52500-52600-52700-52800-52900-53000-53100-53200-53300-53400-53500-53600-53700-53800-53900-54000-54100-54200-54300-54400-54500-54600-54700-54800-54900-55000-55100-55200-55300-55400-55500-55600-55700-55800-55900-56000-56100-56200-56300-56400-56500-56600-56700-56800-56900-57000-57100-57200-57300-57400-57500-57600-57700-57800-57900-58000-58100-58200-58300-58400-58500-58600-58700-58800-58900-59000-59100-59200-59300-59400-59500-59600-59700-59800-59900-60000-60100-60200-60300-60400-60500-60600-60700-60800-60900-61000-61100-61200-61300-61400-61500-61600-61700-61800-61900-62000-62100-62200-62300-62400-62500-62600-62700-62800-62900-63000-63100-63200-63300-63400-63500-63600-63700-63800-63900-64000-64100-64200-64300-64400-64500-64600-64700-64800-64900-65000-65100-65200-65300-65400-65500-65600-65700-65800-65900-66000-66100-66200-66300-66400-66500-66600-66700-66800-66900-67000-67100-67200-67300-67400-67500-67600-67700-67800-67900-68000-68100-68200-68300-68400-68500-68600-68700-68800-68900-69000-69100-69200-69300-69400-69500-69600-69700-69800-69900-70000-70100-70200-70300-70400-70500-70600-70700-70800-70900-71000-71100-71200-71300-71400-71500-71600-71700-71800-71900-72000-72100-72200-72300-72400-72500-72600-72700-72800-72900-73000-73100-73200-73300-73400-73500-73600-73700-73800-73900-74000-74100-74200-74300-74400-74500-74600-74700-74800-74900-75000-75100-75200-75300-75400-75500-75600-75700-75800-75900-76000-76100-76200-76300-76400-76500-76600-76700-76800-76900-77000-77100-77200-77300-77400-77500-77600-77700-77800-77900-78000-78100-78200-78300-78400-78500-78600-78700-78800-78900-79000-79100-79200-79300-79400-79500-79600-79700-79800-79900-80000-80100-80200-80300-80400-80500-80600-80700-80800-80900-81000-81100-81200-81300-81400-81500-81600-81700-81800-81900-82000-82100-82200-82300-82400-82500-82600-82700-82800-82900-83000-83100-83200-83300-83400-83500-83600-83700-83800-83900-84000-84100-84200-84300-84400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8100-158200-158300-158400-158500-158600-158700-158800-158900-159000-159100-159200-159300-159400-159500-159600-159700-159800-159900-160000-160100-160200-160300-160400-160500-160600-160700-160800-160900-161000-161100-161200-161300-161400-161500-161600-161700-161800-161900-162000-162100-162200-162300-162

Truck Crops

By GILBERT S. WATTS

Freshness Wins Before Others Start

NO we are not reporting horse races in the truck crops column. However, such a startling headline is demanded to present the decisive results of a questionnaire on roadside marketing that was sent to 2,400 Massachusetts consumers. Of the 1,323 persons who considered roadside markets a satisfactory place to buy fruits and vegetables 1,120 gave freshness as their reason. That leaves price with 247, pretty far down in the odds.

Of the 673 persons who have not found their roadside marketing experiences satisfactory the reasons given were poor quality and lack of freshness 392, price not right 180, poor service 107, and some other reasons in minor numbers.

Display Stops Them All

Thus we might continue our headlines, for Display certainly did run away with the race in answer to the question, "What makes you stop at a roadside stand?" The winnings were: Display 1,494, Convenience 276, Reputation 133, Curiosity 90.

Eighteen hundred and twenty-two bought vegetables, 1,574 bought fruits, 223 bought poultry products, 164 bought cider, 78 bought flowers and 39 bought dairy products.

Other answers worthy of digestion are those to the question, "Would you buy oranges, bananas, grapefruit if the stands had them for sale?" Yes, 373; No, 1,673. No judge's decision about that: the majority expect native farm products at roadside markets.

Probably no vegetable loses quality more rapidly after harvesting than sweet corn. All of which means that there is a special opportunity to build a roadside market trade for sweet corn that is better than the best that many city dwellers ever have tasted. Rich soil, succession plantings, timely picking and immediate marketing will turn out a product that will bring customers back repeatedly and in increasing numbers.

Our 1930 Roadside Markets

Planting time is at its height. Selling time is at hand for those who made an early start. The highways carry ever increasing herds, flocks, droves, swarms of automobiles. Those who possess the vision—and management—to offer, as we said of the sweet corn, things that are better than the best that many folks know are not likely to go without reward.

Dip the Sweet Potatoes

STEM rot, black rot and scurf, three common diseases of sweet potatoes, cause excessive losses annually, says W. H. Martin, New Jersey plant pathologist.

The losses from stem rot may be greatly reduced by growing resistant varieties such as the White Yam or Red Brazil, or the more resistant strains of the Yellow Jersey. Seed selection is likewise an aid.

The first requirement for the control of scurf is the bedding of clean seed that has previously been disinfected in one of the mercury compounds. Even where this practice has been adopted, however, the disease has not been eliminated and experiments have been conducted during the last four years in an effort to obtain a simple, efficient method of control.

This method of disease control is simple. The organic mercury compound used is made up at the desired concentration in a wooden container. The sprouts are pulled and dipped into the solution. When dipping the sprouts, try to keep the chemical from the leaves of the plant. Only the underground portion of the plant should be dipped.

Make the Harvest

faster, easier, and cheaper

with a new



McCORMICK-DEERING Binder

THE 1930 models have many time- and grain-saving features that are not on older machines. Nine ball and roller bearings at the important points lessen the draft and assure smooth, frictionless operation. More space between the main wheel and main drive chain eliminates accumulation of dirt and undergrowth. The controlling levers are easier to reach and operate. You have a choice of either McCormick or Deering binder attachments.

But these are only a few of the many features that have been added to make the harvest easier, faster, surer, and more profitable. Only by seeing the machine can you fully appreciate how much progress has been made in binder construction. Ask the nearby McCormick-Deering dealer to show you.

INTERNATIONAL HARVESTER COMPANY
OF AMERICA
606 S. Michigan Ave. (Incorporated) Chicago, Illinois



... Patented, non-collapsing cover... twine unwinds freely to the last foot.

... When you look right down through the patented cross-cover, you can see hundreds of feet of good twine—good all the way through.



and McCormick-Deering

Twine

Guaranteed for
LENGTH, STRENGTH
and WEIGHT

and treated against destruction by insects, the original "Big-Ball" is the twine you can choose with confidence that the only manufacturer of both binders and twine has put the very best quality it is possible to produce into every foot of every ball.

Take No Chances

Buy the twine that looks good, is good, and has been time-tested and found completely satisfactory. Insist on the old reliable McCormick-Deering "Big-Ball" Twine.

PLANTS

All leading varieties

| | 100 | 200 | 1000 | 1000 |
|--------------------|----------|----------|----------|-----------|
| | price | price | price | price ex- |
| | postpaid | postpaid | postpaid | postpaid |
| Tomato | \$3.25 | \$11.50 | \$22.00 | \$11.50 |
| Cabbage | .35 | 1.00 | 1.50 | 1.50 |
| Pepper | .60 | 2.00 | 3.20 | 3.00 |
| Celery | .50 | 2.00 | 3.50 | 3.00 |
| Cauliflower | .60 | 2.00 | 3.50 | 3.00 |
| Sweet potato | .50 | 2.00 | 3.50 | 3.00 |
| Brussels | 1.00 | 4.00 | 8.00 | 6.00 |

All plants carefully packed in boxes.
Send for Catalog
OROL LEDDEN & SON, SEWELL, N. J.
Largest growers of vegetable plants in New Jersey

METAL ROOFING



CONSUMERS MFG. & SUPPLY CO.
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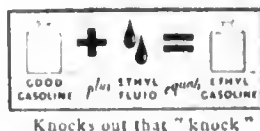
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Farm Facts and Fancies

By ALVA AGEE

AMONG the marvels of nature is its persistent effort to build up soil fertility. All the time many forces are at work. Man interferes because he must have food and clothing from the soil and has decided preferences about what he wants. Some of the interference is a benefit, causing fertility to increase. The greater part of the area we farm is the loser by man's control. It would have been better off if it never had been in the power of the human race that thinks pretty highly of its own intelligence and ability.

The Vegetarian

The Indian was a meat-eater, and that favored the soil. I know little about the relative merits of meat and vegetables as human food, but all this teaching that we should use more vegetables and fruit, and cut down on meat, rather directly affects soil fertility. That is not true of the individual farm whose owner makes commercial fertilizers and legumes add to supply of plant food while vegetables and grain are grown for market, but I am speaking of the country as a whole. The land has less chance of lying happily covered by sods and of storing up rich organic matter.

Another thing the vegetarian does: he reduces the number of acres required to feed the people. It takes far more land to feed a family that eats meat freely than one using chiefly bread, vegetables and fruit. The drift from meat is one reason that we find we have too much land.

I am advocating nothing and defending nothing, but am trying to state the case so far as the responsibility of our vegetarians goes. They may be wholly in the right—and may not—but the effect on the land is as stated. The interference with nature's program of soil-building by keeping the land covered with sods is far reaching.

The Farm Owner

More important than the effect on the soil is that on the owner of the land when fertility is not maintained because sods have been taken out of their rightful place in the farming scheme. The fact that some men keep their land rich in a close cropping rotation does not help the owners of farms that are losing in fertility.

It is disheartening to see fields that are growing poorer while making some contribution to their owners' crops but nothing to the owners' profits. There is a lot of land like that, and neither the greater part of it nor its owners ever will be comfortable until it goes back into nature's scheme of soil improvement and is given a sod and is allowed to keep it. The results from the sod are heartening to all concerned.

Helping to a Sod

Right here is the lame place in such a plan: if the land has been cropped, lime, phosphoric acid and potash have been taken out; if it has been pastured, the same thing has taken place. The owner has been draining available mineral plant food out of it. When it is proposed to let nature use sods for its improvement, that improvement will be slow unless the mineral supply is replenished for the grass. Some headway is possible even when the lime is ignored, redtop and alsike clover producing a covering for the ground, and putting some organic matter into it if phosphoric acid is supplied.

But this land should be left in sod for years, and pasturing is the means of making it pay its way. The outstanding pasture grass is bluegrass, and it must have lime. Lime and phosphorus help bluegrass and white clover, and these make a sod that lets land do its soil-building. Such a sod adds to the soil's stock of good organic matter year after year, if it is not pastured close.

Probably nine cases out of ten, when a farmer plans to plow down a heavy bluegrass sod he would do well to change his mind. It is too much like selling government bonds for the reason that the cash returns are not as great as something else promises. We speak of certain soils being "live" or "friendly" in like fashion we can say that land under a good sod of bluegrass and white clover is "comfortable," and that is all to the owner's good.

What Next?

It is clear enough that the Federal Farm Board, acting under the present law, is not getting the results it expected. The price of wheat is very low, the government owns a lot but does not let the public know how much, the cooperatives are heavy holders, and the stored wheat is in the way of the crops of new wheat that will be coming on the market in a few weeks. In the meantime all other countries except Canada have found a market, and Canada has unloaded a part of her crop.

The law, as it now is, does not give satisfaction to anybody. The attempt to regulate price will not be dropped at this stage, and the only question, as I see it, is what will be the next move. Probably it will be an attempt to place a bounty on exports. The aim would be to raise the price of the wheat consumed at home by the amount of bounty per bushel payable on that exported. If the bounty plan is adopted, we shall see other countries retaliating, and commercial relations between ourselves and Europe will be unfriendly.

There is one result from attempted price-fixing that we shall see pretty surely. Naturally the countries that are dependent on imported wheat for their bread do not like what we are trying to do. The production of wheat in Russia, Southern and Western Europe and the southern hemisphere will be encouraged to relieve them of any dependence on this country. There is danger that our export market may be permanently affected.

What we need is a clear-headed statesman who really knows what is the greatest practicable service to agriculture that our government could render, so far as surplus production is concerned. Our next need would be the ability to believe in him and his policy.

There's a Reason

ON the editorial page of the Pennsylvania Farmer recently appeared a short item on Farm Help. Also, another editorial, A Real Problem. This second editorial goes a long way toward answering the question raised in the first as to the reason you have received no requests for farm help this month.

Farming has fixed charges in the form of taxes, insurance and a definite overhead. We are forced to meet these rising costs from a value-declining source of revenue. And we face the unusual situation that when the labor we so long had sought on our farms was available from industry, our condition is largely such that we cannot afford to hire it.

Three years ago we had twenty hands in our threshing ring, last year twelve, this year eight. The acreage is the same. I do not know of any farmer who will keep a hand this year.

So the reason we are not demanding farm help is because we have a real problem on our hands. A problem which our farmers will in time work out, confident that theirs, as a basic industry, must survive, and looking for leaders and legislators wise enough to acknowledge that the basis is the earnings of the investment dollar and not an artificial valuation of their soil. S. H. Green.

The Story of Woodbine Farm

By W. D. ZINN

IHAD taken notes of the evidence of the defense and this I went over until I had the statements of each witness clearly in my mind. At nine o'clock Court convened and I had the opening address to deliver. I reviewed the evidence of the plaintiff step by step and spoke of the character of my witnesses and I stressed the fact that they, in no measure, were interested. I then reviewed the testimony for the defense and contrasted with those of the plaintiff.

My legal friend made a good and able plea for his client but, as he told me in after years, he felt all the time that he had no case. The noon hour came before he was through with his argument, so we recessed until one p. m. when he concluded his argument and I spent a short time in summing up the evidence on both sides. The Court found in favor of the plaintiff. The defendant promptly appealed the case to a higher Court.

The Cow Chase

Two months before the hog transaction I had sold some fat cows to Mr. Smith. One of these cows I did not see before selling her, neither did I see her when she was weighed up to Mr. Smith, but he saw her before he bought her. He sent a boy with a dog to drive the cows to Elkins, a distance of 20 miles.

The one cow that I never had seen stood in a stall for 52 days, never being turned out. She had made a remarkable gain. Not being accustomed to traveling, the drive with the dog chasing her proved too much for her. She never ate anything after she reached Elkins and died in a few days.

It happened that the note for these cows fell due the day that I got judgment against Mr. Smith for the value of the hogs. Mr. Smith tendered me, on that day, the amount of the note less the value of the cow that had died. Of course I declined to accept the money and before I left the Court room brought suit on the note. I had succeeded so well in the hog case that I decided again to employ no counsel.

The day for the second trial came on and again I found that Mr. Smith had an army of witnesses summoned to prove that he had purchased of me a diseased cow. This law suit, however, did not "get on my nerves" like the first one. I was becoming seasoned to it and it caused me no loss of sleep.

I had bought the cow of a Mr. Lance. I had as my witnesses Mr. Lance and the gentleman who weighed the cow to Mr. Lance and also weighed her to me. These witnesses said that they had never seen a healthier cow nor one that had taken on more weight in so short a time.

"Stumped" by Legal Term

In arguing the first case I called the attention of the Court to the fact that my lawyer friend had read no law in support of his side of the case. Afterward I learned to my sorrow that I had talked too much. When my friend the lawyer began to argue this case he had on his desk an armful of law books. He had not proceeded very far until he told the Court that he wanted to call its attention to a law called the act of "Recoupment." He then explained that the defendant had a right to off-set the account of the plaintiff by any amount that the plaintiff might owe the defendant.

The recoupment "stumped" me. I did not know what it meant at first, but I began to apply the little I knew of Latin and came to the conclusion that recoupment meant to off-set. I was not very sure of my ground, but as I had to do something I arose and said: "If the Court please, the plaintiff admits that if the defendant has (Continued on page 12.)

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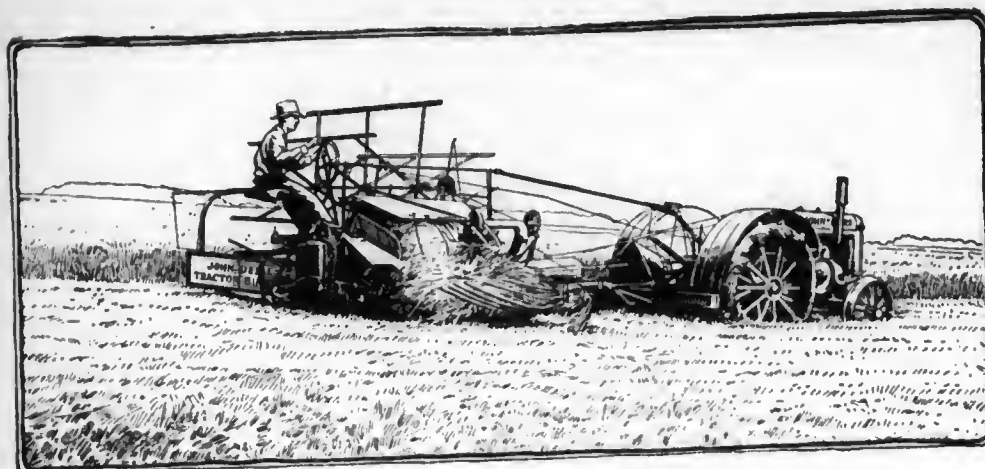
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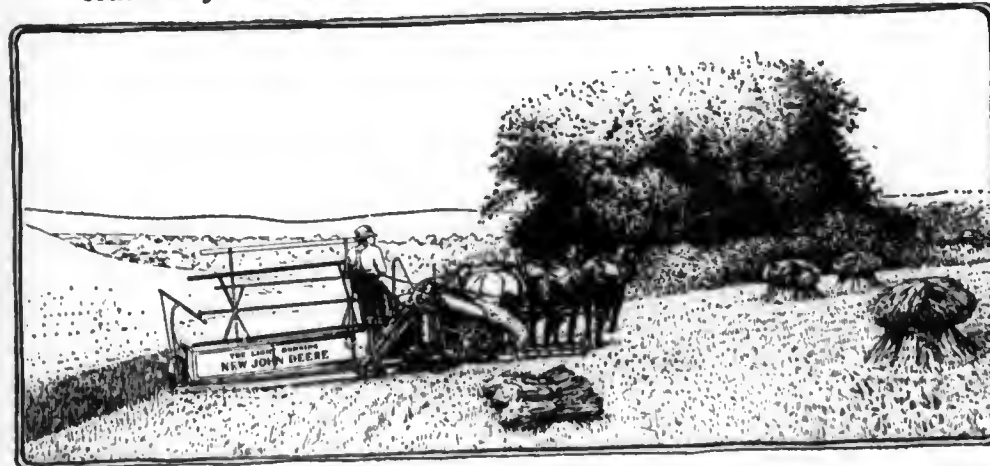
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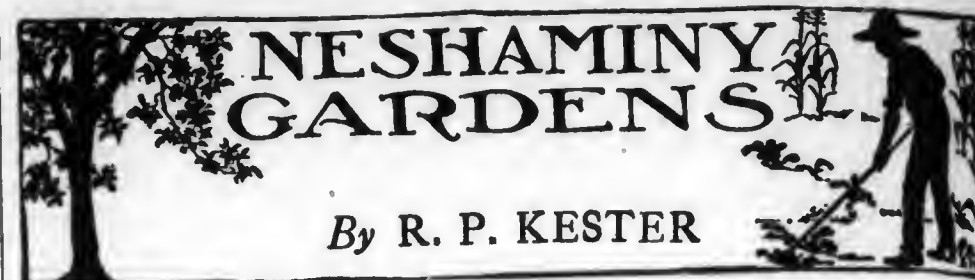
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By R. P. KESTER

THOSE of us who have lived and observed the changes in American life and business during the last twenty-five years have seen revolutionary changes take place that occurred in any one hundred preceding years. Probably no other class of our people has been more affected by these changes in business and social customs than have farmers. Some of the older generation have not taken kindly to the new methods and conditions. They have felt critical and rebellious over the fact that they could not pass the remainder of their lives in the same kind of environment in which they started life.

I am of the opinion that it would have been doing a good turn if the writers and teachers who have been speaking to agricultural people had taken more pains during the past quarter of a century to make clear the processes that have been at work transforming American life; that is, if the writers and speakers understood it themselves. As it was, farmers bumped into the changed conditions without warning with the result we have experienced during the past ten years—over-production in many lines and an unreadiness to supply other things.

As an illustration of this: Twenty years ago there were 18,000,000 acres of farm land in the United States devoted to growing feed for horses. These acres were kept in this line of production too long, or until farmers waked up to realize that 25,000,000 motor vehicles had in a large measure displaced horses and they had an unprofitable market for their horse fodder. The machines got their feed from oil wells.

Cotton raisers and wool producers did not wake up to the fact that the women's styles had changed to such an extent that the bottom was knocked out of the markets of both these commodities. The farmers and sheep raisers kept on with the same acreages and the same sized flocks until low prices jarred them awake, and they realized that silk and rayon had supplanted the old staples in the clothing line.

But it was more than a changing whim in styles that brought about the change. Better houses and warmer homes, to say nothing of closed, comfortable cars for travel, made thinner clothing necessary and the heavier, thicker materials were discarded. The same principle has been at work in the matter of foods. Gone are the days when the average family must fill up on corn, fat pork and plenty of bread in order to keep "the home fires burning" so as to withstand the cold of winter. A summer diet is now sufficient in winter for the reason that we fight the cold in other ways.

Then another cause of the jam in the matter of over-production was because we learned how to produce so much more per man. Machinery and improved methods have more than taken up the slack caused by the millions of people who have left the ranks of food producers and joined the consuming class. The census just being completed, it is said, will show the greatest reduction of the farm population ever tabulated in any census, yet our granaries and cellars are overflowing with food products. When will the danger point be reached in farm desertion? Surely, that day is not yet in sight.

But during all these years of transformation in the habits of the people our agricultural leaders, with few exceptions, have been harping on the same lines of instruction they themselves learned a generation before when conditions were different. Is it possible that with all our education it must yet be said that the human race learns little except through experience? If ever there was need for prophets in the teaching forces it is now, and it has been so for the past twenty years.

Friendly Talks

By Edgar L. Vincent

"I STEPPED on a little piece of ice. It was covered with snow and I fell and broke my arm." So easy to slip.

"I made a misstep going down stairs and fell clear to the bottom. It bruised me up terribly." So easy to slip.

Yes, it is the easiest thing in the world to slip, and the folks of the farm are just as apt to make a mistake that way and lose their balance as anybody in the world.

Just now I met a farmer who is in my opinion missing it the worst way. He has a good farm, a nice wife and some fine boys and girls; but something has happened to him. He has lost his pride. He lets things go around the old farm so that they are always at sixes and sevens. He does not seem to care how he looks when he goes to town. Face rough with a week's beard; trousers tucked into his boot-tops. It makes one feel bad just to look at him.

For that man is surely slipping. Some day he will go down, and I dread to think what a crash there will be. While he may not break a limb or bruise his body, he will lose something more valuable than anything of that kind. He will lose self-respect.

The man who thinks little of himself is in a bad way. It will lead to his losing the respect of his neighbors. Worst of all, his own boys and girls will come to think as meanly of him as he does of himself; and I hold that that is a loss which no man can afford to sustain. Bad enough to go down in the estimation of one's friends and neighbors. It hurts to have the farm run down, but to know that one's own children think little of their father, that is what breaks one's heart.

So it seems to me that every one of us ought to think well of ourselves. We should hold our heads high and feel that we are engaged in the greatest business this world knows, a business without which humanity would sink into nothingness. Let's realize our high station in the sight of God and work hard to maintain it.

Can't Carry a Tune

FORMERLY we had plenty of king birds, wrens, bluejays, robins, barn swallows and many other common varieties. But now you see nothing but starlings, one of the most destructive birds on the farm. They eat the fruit and pull the grain, besides destroying other birds' nests by eating the eggs and young and fighting the other birds. That is the reason we have nothing but starlings, and they can't even carry a tune.

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Pittsburgh, Pa., May 31, 1930

No. 22



Thin pasture, thin cows, thin profits.

The Lean-Fleshed Months

By E. A. KIRKPATRICK

SOME dairymen are having bad dreams now—as bad as the dream Pharaoh had about the seven lean-fleshed and seven fat-fleshed kine. If Pharaoh were alive today and milking cows for a living he would see the seven fat kine devoured by a smaller number. Five lean cows would do the job, the significance being that the dairy profits of seven months of the year are swallowed up by the losses of the other five.

The five lean-fleshed and ill-favored months that eat up the profits for so many dairymen are the summer months when cows are on grass. They ought to be the best months of the year—for don't cows need grass?

They would be the best months of the year if dairymen only kept on feeding grain through the summer. But many dairymen don't. As soon as the grass is well up, grain is reduced or discontinued entirely. As one progressive dairymen aptly puts it: "They padlock their feed bin and tell the feed dealer they are away for the summer."

Imagine how you would feel if you came in from the field when greens are in season and found no bread, meat or potatoes on the dinner table—only greens. That's the situation the dairy cow is in when grass alone supplies her food. The cow doesn't react to the situation as you would, however. She goes crazy over the first grass of spring, and will refuse hay and grain for a time; and therein lies the danger.

The dairymen is likely to feel, and many of them do feel, that if a cow likes grass so well and then refuses grain when she can get grass, then grass is what she should have. In Pharaoh's time cows could get along very well on grass. Today they can't. That is, not the kind it pays to keep for milk. It's a difference in the cows, not in the grass.

A cow that gives 15 pounds of milk a day can get along on grass alone. Let's see what her daily ration would amount to in a year. If my multiplication table is right, it would be something less than 6,000 pounds of milk a year. You can't skim a great deal of cream off the milk from such cows. They don't make their owners rich, or enable them to have a new car every year.

A cow that gives 40 pounds of milk a day can't eat and digest enough green grass ordinarily to supply all the nutrients she needs. A cow giving 40 pounds of milk a day would have to eat and digest 300 pounds or more of green grass to get all the food required, for there are only ten pounds of dry matter in 100 pounds of green grass. That is a smaller amount than there is in 100 pounds of milk with 15 per cent solids.

When a producer of this ability goes on green grass in spring she may keep up in production for a while. Sometimes she will increase her daily production, but when she

does so she makes the milk out of nutrients from her own body tissue. After the tonic effect of the green grass wears off, milk flow decreases and the cow loses weight.

What is just as important is the fact that after the grass goes along toward maturity it becomes woody and unpalatable, contains less protein and more fiber, and often burns out entirely due to heat and drought. A cow that has gone through the green grass period without grain, and has put some of her own body tissue into the milk pail, is in no shape to get along on the poorer pasture of late summer and fall. If at this stage of the game the dairymen realizes the situation and begins to feed grain, he must not only feed enough to supply the raw materials for milk, but extra grain to build up the cow's body. It is a hard job, bringing back milk flow in late summer, if it is allowed to slip in spring or early summer.

Why do so many dairymen handle the grass situation so mistakenly? For the simple reason they do not consider grass as roughage, which it is. Dairymen who are considered wise feeders would not think for a minute of going ahead with hay alone if grain gave out in winter. Pasture without grain is essentially the same thing. As the grass

loses its succulence it loses its protein. The cow that stays on grass throughout this change is in no different position than the cow that is switched from alfalfa to timothy hay in winter.

Most any cow tester can show you with figures the point I am trying to make by statement of fact. A tester in one of the Pennsylvania associations told me late last fall that the herds which had been fed grain liberally all summer were the ones that held up in milk flow, not only in summer but in fall after the cows were taken off pasture.

Another Pennsylvania tester tells of a herd in his association that produced 9,000 pounds of milk on pasture alone during June and July. The following year, during June and July, grain was fed and the production was 13,000 pounds, with two cows less in the herd. The value of the increase was \$90, the feed cost was \$44. Profit over feed, \$46. "Moreover," he points out, "the cows were in much better shape to start fall and winter production."

A Kansas tester remarks that the cows which get a good grain mixture while on good sweet clover pasture are the ones which are producing the milk. Another says that the ones which have held up in production during the summer are the ones which had grain while on grass, with protein supplements as soon as the grass began to harden.

The same is true in Illinois. One Illinois dairymen whose experience was related to me, increased his returns above feed cost more than 64 per cent by feeding grain on pasture. When grain was fed in addition to pasture, his returns on each \$1 spent for feed jumped to a total of \$3.45 as compared to \$2.10 during the same month of the previous year. Feed cost of one pound of butterfat was reduced from 21 cents to 15 cents, while feed cost of 100 pounds of milk was lowered from \$1.05 to 85 cents.

The value of feeding grain to dairy cows on pasture was brought out clearly in the case of another Illinois dairymen who quit following this practice. During the first month after the change, production of his cows dropped off nearly 15 per cent and the herd lacked \$22 of making as much return above feed cost as it did the previous month.

Minnesota testing association records show that the cows getting grain with pasture produced 68 pounds more butterfat per year than those on grass alone. The grain cost \$7.46 per cow more, but the fat was worth \$27.50 a year. A big feed bill means something when it's hitched on to a good cow.

Pasture is of course very important in the dairy business, in fact all livestock enjoy and profit from eating good grass, but the owner who expects a cow to board herself all summer usually pays the bill in the end.



Grain in summer helped these grades to make 9,994 lbs. of milk, 885 lbs. of fat.

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Volume 102, No. 21..... Established 1877

ALASKAN COMPETITION

WE remember the first shipment of reindeer to Alaska. The deer were unloaded for feed and water at the old Pittsburgh stockyards. Now the Alaska herd is estimated at 1,000,000 head, an increase of 600,000 since 1925, and its expansion to 10,000,000 is predicted. Reindeer meat promises to become a real competitor in our markets before the end of another decade.

UNIMPORTANT

A PRESS bulletin of the Ohio Experiment Station refers to "nine pure-bred Jersey heifers, half-sisters, and nine pure-bred Holstein heifers, also half-sisters." What are half-sisters in terms bovine? In discussing turf horses it is customary to apply the term half-sisters to the progeny of one dam by different sires. All of which may be highly unimportant but such things are sometimes interesting.

REASON FOR ROTATION

ACCORDING to Professor M. F. Miller of the University of Missouri the top seven inches of soil on a 3.68 per cent slope will be washed away in forty-nine years if the land is cropped continuously in corn. With a rotation of corn, wheat and clover the same amount of washing will require 320 years. This may be called the erosion reason for crop rotation, but there are many other good reasons.

FOR BUTTER CONSUMPTION

THE emergency campaign to promote the consumption of butter proved so successful that the National Dairy Council has proposed a permanent educational movement for the same purpose. The funds will be provided by regular contributions from all interests, dairymen allowing a deduction of one cent for each can of cream delivered. While the dairymen of this region are not directly concerned in this plan they are vitally concerned in any effort of any part of the industry to promote the consumption of dairy products. The Dairy Council's plan looks good and it should have the support of all branches of the industry.

A MERE OPINION

THERE is plenty of room for difference of opinion about the primary effects of the new tariff bill on agriculture. For it is impossible to determine in advance whether any advantage in higher duties on agricultural

products will or will not be offset by higher duties on other commodities. But some secondary effects of the proposed tariff are already manifest, and they are distinctly unfavorable to agriculture. This legislation is already provoking retaliatory sentiment which affects our industries and labor and thereby our home market for farm products. It threatens to do much more than that. Other countries are not only putting higher tariffs on our agricultural exports but are preparing special trade arrangements to discriminate in favor of each other's commodities and against ours. Great Britain, for example, proposes to sell in Canada what this country now sells; and to buy in Canada what is now bought here. Such an arrangement would be a tremendous blow to our export trade in both manufactured and agricultural products. Viewing both primary and secondary effects, we cannot escape the conclusion that the new tariff bill will result in more harm than good to agriculture.

A CHINESE EXAMPLE

BY reading a Chinese official report, published in English, we learn that Hon. Ko Ching-en, mayor of the city of Tsingtao, has reduced the number of bureaus of administration from nine to five, saving \$300,000 a year in the cost of local government. In our country officials couldn't do such a thing, and maybe wouldn't if they could; but the taxpayers should begin seriously to study possible economies in local government. Our system is both ancient and expensive, and we might improve it and reduce its cost at the same time.

AGAIN THE GENTLE BULL

SUNDAY afternoon, May 18, John Clark of Angelica, Berks county, Pa., went to the pasture to drive his employer's herd bull to the barn. The bull attacked him, tossed him over its back and then tried to gore him as he lay on the ground. He succeeded in getting hold of the ring in the bull's nose and hung on until another employee, George Ehr, came to the rescue. Mr. Clark is in the hospital with severe if not serious injuries. Mr. Ehr's courage in entering the fight and getting control of the bull deserves the highest praise. The part played by the rescuer is the only bright spot in all this dark record of bull tragedies.

A LITTLE BETTER

AFTER a big slump the wool market is showing signs of improvement. At recent Australian and British auctions prices advanced five and ten per cent from the low point. In this country more activity is reported but no important price changes. The market for wool fabrics appears to be stronger. The American Woolen Company, the largest user of wool, recently advanced the price of its cloths and appears to be able to maintain the new level. Fashion also is a little more favorable to the use of wool. While current world supplies are liberal stocks of fine wools are not so large, particularly in this country, and the tendency is away from their production. The consensus of opinion is that the wool market has found bottom, that any change is likely to be for the better, but that there is no reason for excitement.

OLD AND NEW PRODUCTION

YEARS ago, when the production of sundry novelties was being recommended on account of low prices for the usual crops, we called attention to the fact that most farmers must continue to depend on staple products for their income. That is true now as it was then, but there have been some developments which should have full consideration. Back in the nineties, for example, potatoes were a garden or truck-patch crop

in most parts of Pennsylvania. Now potatoes must be rated among our staples and their production will increase as farmers realize the opportunities nearby markets give them. The same thing is true of other things such as common vegetables, tree and small fruits. Last year an acre of land brought a Pennsylvania farmer 750 bushels of carrots which he sold at \$1.25@1.50 per bushel. Every year some farmers tackle the production of something new to them but marketable in this great industrial region. It is a question whether this development is as broad as it should be. Are we too much devoted to the staples of our fathers and too little inclined to take advantage of the opportunities our market situation affords?

ANOTHER FAILURE

THE business world is witnessing the discomfiture of another group of experts who thought they could nullify economic law by a "stabilization" scheme. This time it is copper. We mention this latest fiasco because it is a fine example of the kind of stabilization some alleged economists would inflict on agriculture. Over a year ago the large copper producers decided to cooperate, to restrict production, to hold the price at a profitable figure by orderly marketing. The price of copper got away from them at first, jumping to 24 cents a pound. Even the producers could see that was dangerously high. They voluntarily brought it down to 18 cents and held it there for a whole year. This stabilization plan really worked, it appeared.

But behind the scenes things were happening. Manufacturers of copper products turned to aluminum as a substitute. They bought up and remelted scrap copper, twice as much of it as the year before. The little and the marginal producers started mining at an unheard-of rate. A surplus began to pile up. European money poured into Africa to open new mines there. Naturally the whole scheme collapsed. Within a few days the price dropped from 18 to 12 cents. Now the red metal is moving again near the lower prices. But, long after they have forgotten the cause of their trouble, the cooperators will miss the markets lost to aluminum, to scrap metal and to the over-stimulated African mines. If copper economists are like some others we know they may devise another stabilization scheme to solve this new set of problems.

MAGAZINES AND MILK

THE current issue of one of the women's magazines has an article on undulant fever. This is the disease which humans sometimes contract, presumably from the use of raw milk from cows infected with Bang bacillus disease, otherwise contagious abortion. The article graphically describes the delirious suffering of a child afflicted with undulant fever. He had been drinking raw milk from his grandfather's herd which was accredited but not abortion tested. Other cases are cited along with statistics which would indicate that many unnamed or misnamed illnesses are really undulant fever. The article ends by urging the magazine's millions of readers to use only pasteurized milk while farmers are eradicating Bang bacillus from their herds.

This is the second women's magazine of vast city and town circulation which has published a feature article on this subject recently. Without doubt both have frightened thousands of city housewives. Right or wrong, they are educating milk consumers to make certain demands on milk producers. When distributors and public health authorities start to issue irksome regulations it will do no good to accuse them of tyrannous violation of farmers' rights. They are simply yielding to public pressure. There are more consumers than producers. The majority rules, and it is a buyers' market.

Pennsylvania Farm Comment

By MILES HORST

Federal figures are correct, farm real estate values in Pennsylvania have dropped three points during the past year. They are the lowest they have been since 1914. In this decrease they are in line with those of New Jersey and New York, but slightly more than the decrease of farm real estate values in the country as a whole, which decrease is estimated at one per cent.

M. Reisinger, president of the Pennsylvania Jersey Cattle Club, has called a business meeting of the club at State College, during the Farmers' Week program. Plans for summer activities of the club and the organization exhibit at the 1931 State Farm Show at Harrisburg will be made at the meeting.

WHEN Union county organized its first calf club three years ago with some fifty members, each purchasing a well-bred heifer calf, it laid the foundation for almost as many good dairy herds. Of those heifers in that first club, 27 have finished their first year's milking. Their average production was 9,255 pounds of milk and 314.1 pounds of butterfat, or almost twice the average annual production of the cows in that county. One club heifer owned by Paul Zimmerman came through her first year with 13,332 pounds of milk and 563 pounds of fat. These club members are raising the heifer calves from their original heifers so that within a few years they will be the owners of dairy herds far above the average in their communities.

FIRE, says the U. S. Department of Agriculture, destroys roughly \$100,000,000 worth of farm property each year. In addition to farm property other property in rural communities lost annually by fire is even greater. The two total more than all city property lost in this way even though city property is several times more valuable than rural property. One reason for this heavy loss in rural communities must be attributed to the general lack of organized and planned methods of fire prevention and fire-fighting in the open country. Here and there a township has its own fire-fighting apparatus. More of these are needed. But in addition to the apparatus, water supplies must be considered. The use of fire-proof building materials, arrangement of buildings to prevent spread of fire and a host of other problems enter into the prevention of these immense losses.

TWO important farm events fall on the same dates this year. Farmers' Week at State College opens Tuesday evening, June 17th, and continues through until Thursday evening, June 19th. The Lancaster Fair Cattle Show will be held on June 18th and the following day the cattle will be sold at public auction. Both events will be highly interesting and well worth attending.

OF the 54 outbreaks of hog cholera reported in Maryland since Jan. 1, Dr. Atherton, in charge of cholera control work in that state, attributes 32 to the feeding of infected pork in garbage and kitchen still. As the summer advances, Dr. Atherton estimates that the percentage of infections due to this source will increase, for during the summer and fall hog growers purchase considerable amounts of cured meats which may carry the infection. Cooking all scraps will destroy the infection. Better still keep all pork scraps away from hogs.

RECENTLY a farmer in Franklin county sold a cow to a dealer. Five days later she died. A post mortem revealed that the cow had a number of nails in her stomach. The dealer refused to pay for the cow on the ground that she was not sound at the time of purchase. The case went before a local justice of the peace who decided that the dealer must pay for the cow.

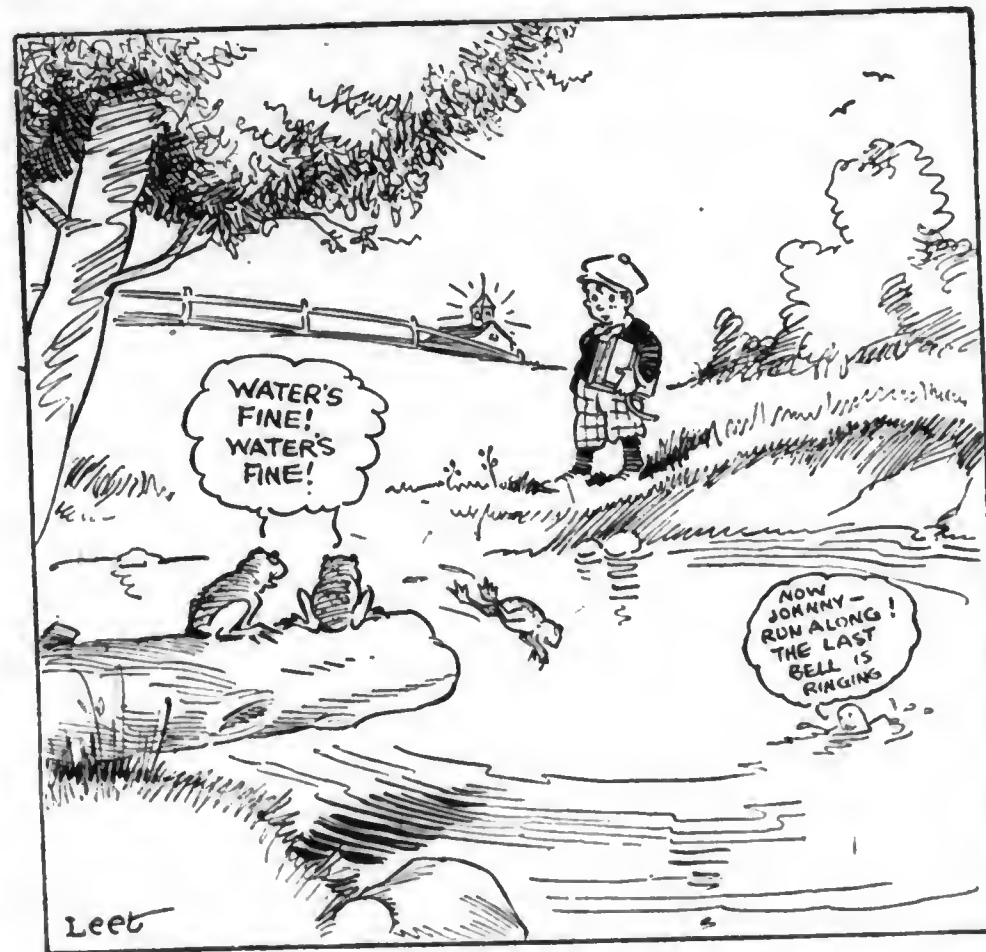
A STUDY of the relation between spray pressure and yields on "400-bushel" acres in this state made by Earl Moffitt brings out the following facts. On acres yielding from 400 to 500 bushels the spray pressure actually used by the growers was an average of 290 pounds; on acres yielding from 500 to 600 bushels the average pressure used was 336 pounds, and on those yielding over 600 bushels the pressure averaged 374 pounds.

This does not necessarily mean that simply because a grower uses a high spray pressure he will get the large yields. But it does point out that spray pressures from 300 to 400 pounds give better results than lower pressures do.

KEYSTONE orchardists will go on their annual tour July 14 to 18, according to an announcement just made by the Pennsylvania State Horticultural Association.

Starting at Allentown the tourists will first visit the H. C. Trexler orchards. The trip will then carry the orchardists through Middletown, New York, over the Bear Mountain Bridge, to Danbury, Connecticut.

The Connecticut tour will be in charge of Professor S. P. Hollister, of the Connecticut Agricultural Experiment Station at Storrs. In Massachusetts W. H. Thies, extension pomologist of the Massachusetts Agricultural College, will take



What Johnny Thinks the Frogs Are Saying

charge of the tour. The Hudson Valley in New York will next be visited with L. C. Anderson, horticulturist of the Hudson River branch of the New York Agricultural Experiment Station, in charge.

THE twelve thousand Mexican quail liberated recently in this state by the Pennsylvania Game Commission will be welcomed on the many farms which they will inhabit this summer. The quail is an insectivorous bird ever on duty to help the farmer in his fight against destructive insects. As such the landowner is continually striving to protect it.

A DAIRY exposition will be staged as the chief feature of this year's annual farmer's field day to be held at the Pennsylvania State College, June 18 and 19. This does not change, however, the regular complete program as carried out in former years. For in addition to the special dairy features, there will be tours to the experimental orchards, gardens, seed and fertilizer plots, and inspection of the college herds and flocks under the guidance of the college teaching and research staffs.

THE book accounts kept by the sixty-eight boys and girls on the baby beehives shown and sold at last winter's Farm Show held at Harrisburg have been averaged by "Jimmie" Keim who had charge of the project. These show that the average steer cost \$88.88. The average feed consumption was 3,448 pounds over a period of 273 days and at a cost of \$74.09. The gain on these steers cost \$16 per hundredweight, compared to \$15.26 a year ago. The average gain per head per day over the feeding period was 1.69 pounds. After deducting all costs

company. We turned her inquiry over to the Pennsylvania Insurance Department and were informed that this particular insurance company was not licensed to do business in this state and that for a number of years the company had not issued a financial statement. The Department's recommendation in this case was to leave "hands off."

Emergency Hay Crops

ON a trip through the northern tier counties one is chiefly impressed, this spring, by the deplorable conditions of the clover fields which should furnish this year's hay crop. Following a dry summer, when growth was poor and short, came a winter when the frost came out in February, with alternate freezing and thawing from then on into April. As a consequence, all the clover, and, stranger still, nearly all the timothy was heaved out and killed on practically all the hill fields.

Some farmers, who realized the situation early, reseeded with clover and timothy in April, sometimes with a light harrowing. With a sufficiently moist season this may furnish a crop of clover in late summer, though a midsummer clipping of the quick growing weeds may be necessary.

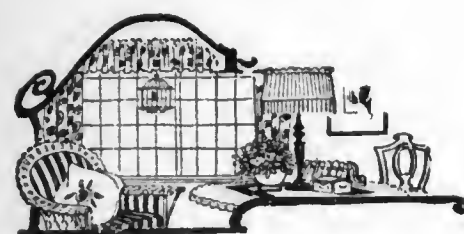
Many fields are being plowed shallow, or worked up with a harrow or disk, so as to keep the lime and manure on or near the surface, and seeded back to oats or a mixture of six pecks of oats and two to four pecks of Canadian field peas. The peas will do best when sown early on good moist soil. Inoculation is advisable.

Many questions are coming in regarding cowpeas. Cowpeas are a southern crop and are not advisable in northern Pennsylvania. Soy beans are a much better bet than cowpeas. They make the best emergency hay, almost equal to alfalfa, and are splendid green feed during August when pastures are short. Soy beans should be put in with a grain drill as soon after corn planting as possible, sowing six to eight pecks per acre. They will be killed by the first frost, so to get their full growth should not be sown much after June 15th. The crop should by all means be inoculated.

Soy bean seed is already rather high, \$3 to \$3.50 per bushel. This will influence many to turn to Sudan grass or one of the millets for later seedings. Sudan grass in a warm, dry season makes more hay and somewhat better hay than most of the other millets. The seed is cheap and is usually sown about June 1st at the blossom stage. In wet seasons, however, it is badly affected with rust. Some sow about a bushel of soy beans and ten pounds of Sudan grass. The mixture is cheaper and the hay usually heavier and easier to cure and handle, but of lower protein and poorer quality, than soy beans alone.

The common millets are inferior in feeding value to timothy, but are pretty sure to make a crop. As with timothy, early cutting makes the best quality feed. With no clover hay to conflict this year, timothy should be cut early. By cutting at the blossom stage, or even before, much more palatable and nutritious cow hay may be secured, with but little sacrifice in the size of the crop. All hay in the northern counties is apt to be at a premium this fall, but for dairy feed quality is the important consideration.

J. B. R. Dickey



The Farm Home



Need of a Change

By H. L. ALEXANDER

I HAD been running a public stenographic office near the mountains of West Virginia and wished to spend a vacation at the seashore, hoping it would do me a lot of good, mentally and physically. Not having the money to do this, I talked with some school teachers who had secured positions during the summer months, and they suggested that I try being a waitress in a hotel at some sea-side resort.

So a girl friend and I wrote letters to the Chambers of Commerce in a number of towns along the New Jersey coast. They responded promptly giving us the names of hotels in their particular towns. Many letters were written and one day we received a form of application from a hotel along the seashore in New Jersey asking our name, age, education and the church to which we belong. We filled in the blanks and gave two references. Much to our surprise and pleasure, in about a week we were notified to report for duty the first of July, and get our own uniforms (white dresses with green trimmings) to match the decorations in the dining room.)

There were twelve girls who waited on the tables and one of these girls occupied the room with us. All of them were either going to school or teaching and were well behaved and attractive. Our duties in the dining room required about five hours a day. The people who ran the hotel had been in business for sixteen years and they knew how to treat help and were very nice to us.

The funniest thing about the whole thing was taking tips. It seemed odd at first to have the guests tip us after meals and when they were leaving. However, our feelings were not hurt by this incident.

We went in bathing almost every afternoon. Many of the girls had members of their family come down for a few days or longer. I had the pleasure of my father's visit for one week and we enjoyed very much taking in the movies and bus rides.

We had the same food that the guests had and the change did me a lot of good. I gained five or six pounds in flesh and came back home with more money than I started out with.

Cooking for Two

AFTER preparing meals for a large family one must do a bit of thinking to cook for just two, without waste of energy and food.

In warm weather left-overs do not keep fresh and it seems best to avoid them, so I do not make filling for an entire layer-cake at one time. I bake three layers and cover one with chocolate icing, perhaps, cut it in halves and it becomes a two-layer cake. With another layer I can use maple sugar or cocoanut; the last layer is fine with filling and top of whipped cream with which we prefer a cake that is not too new. In this way we do not tire of a cake before it is gone.

Using one-half or one-third of all materials mentioned in a recipe gives good results if one measures carefully. Mae Smith.

When Strawberries Are Ripe

SIX cups small berries (about two pounds), four pounds selected berries, four pounds sugar, two tablespoons lemon juice. Select ripe, solid fruit, wash well, and cap. Crush and cook the six cups of small berries for five minutes, stirring all the time; strain. This amount of fruit should yield about two cups of juice. To this juice add the sugar and heat slowly, until it is entirely dissolved. Drop the large berries into this sirup and allow the fruit to simmer for three to five minutes. Drain the berries from the sirup and place them carefully about an inch apart on shallow, enamelware pans or china platters.



Preserves Cooked by the Sun

Boil the sirup for about ten minutes to a temperature of 105 degrees C. or until it is thick. Remove the scum, add the lemon juice, and pour the sirup in a thin layer over the berries on the pans or platters. Cover with window glass propped up about a quarter of an inch so as to allow air to circulate over the fruit. Place the pans of preserves in the sun for two or three days, or until the sirup has formed a jelly. After each day's sunning, turn the berries over, and take them into the house before the dew falls.

Without reheating, put the jelled preserves into hot sterilized glasses, cover the top with paraffin, label, and store in a cool, dry place.

This amount yields about one quart of preserves. The success of this method of preserving strawberries depends on the heat of the sun as well as the firm, ripe, condition of the fruit.

A Thought for Memorial Day

By GERTRUDE S. STEWART

IF those valiant dead whose memory is emblazoned on our hearts anew each Memorial Day as we watch the fresh new flags waving in honor to their bravery and sacrifice, if those silent voices could arouse us to avoid the ravages of war, their message would no doubt be one of friendly brotherhood with all nations.

Perhaps we mothers can speak for them in the ideals we instill into the minds and hearts of our children—the youth today who will be the future rulers of our country in the great tomorrow. What our children hear us say, and what they glean from the printed page is of powerful influence.

The Carnegie Foundation for Peace has suggested a list of books for children which will lead them to see good-

ness and beauty in all nationalities. They are books for children to read or for us to read to them. This alcove of delightful stories excites an interest and tender feeling in children from all over the world. Many times our youngsters clamor for something to do or something to read in vacation.

Let us then this summer give our thought to teaching International Love, and provide ourselves and our children with literature fascinating and beautiful in the realm of interest in our little neighbors all over the world. Here is the list with name of author, publisher and price. If you have a county library, you can get the books there. If you wish to buy books, there is no better choice than this splendid group:

| Title and Price | Author | Publisher | Address |
|---|--------------------|-------------------|--------------|
| In Sunny Spain—\$2.00 | K. L. Bates | Dutton Co. | New York |
| Lucha (Mexico)—\$1.00 | Ruth Gaines | Chicago | Chicago |
| Betty in Canada—\$1.00 | Edna G. McDonald | Little Brown | New York |
| Friends of Ours—75c | Elizabeth Colson | Friendship Press | New York |
| George Washington Lincoln Goes Round the World—\$1.50 | | | |
| Kembo (Africa)—60c | | | |
| Ah Fu (China)—60c | | | |
| The Three Camels—60c | | | |
| Midwinter (Sweden)—\$1.75 | E. Barnard | Friendship Press | New York |
| Allice in Jungland (Africa)—\$2.00 | Neville & Wood | Friendship Press | New York |
| The Hunted Pickaninies (Australia)—\$2.25 | E. H. Spriggs | Friendship Press | New York |
| Little Black Eyes (Japan)—\$2.00 | Katharine Adams | Macmillan Co. | New York |
| Nidita (Mexico)—\$2.00 | Mary H. Bradley | Appleton Pub. Co. | New York |
| Jegging Deer (Japan)—\$2.00 | | | |
| Moon's Birthday (China)—\$2.00 | W. M. Fleming | Macmillan Co. | New York |
| Pepi, the Duck (Germany)—\$2.00 | Karlene Kent | Macmillan Co. | New York |
| Dinner that Was Always There (Alaska)—60c | Grace Moon | Macmillan Co. | New York |
| Dog of Flanders (Germany)—75c | Jorothy Rowe | Macmillan Co. | New York |
| Nuremberg Story—75c | Dorothy Rowe | Macmillan Co. | New York |
| Donkey John of Toy Valley—\$1.50 | Rhea Wells | Macmillan Co. | New York |
| Dutch Twins (Holland)—\$1.00 | | | |
| Heidi (Switzerland)—\$1.50 | R. J. Snell | Whitman Book Co. | Chicago |
| Rabbit Lantern (China)—\$1.75 | Ouida | Lippincott | Philadelphia |
| Abdul (Egypt)—\$2.00 | L. F. Perkins | Lippincott | Philadelphia |
| Coco the Goat (Spain)—\$2.00 | Johanna Spyri | Macmillan Co. | New York |
| Little Tomino (France)—\$1.75 | Dorothy Howe | Macmillan Co. | New York |
| Nettette of the Wooden Shoes—\$2.00 | Winthrop B. Palmer | Macmillan Co. | New York |
| Miki (Hungary)—\$2.00 | Rhea Wells | Macmillan Co. | New York |
| | Hill & Maxwell | Macmillan Co. | New York |
| | Esther Braun | Macmillan Co. | New York |
| | Maud & Miska | Macmillan Co. | New York |

Nip Them in the Bud

By MAME O. THOMSON

SOME of our most troublesome weed pests are also delicious "greens." Among these are dandelions, narrow leaf dock, wild mustard and milkweed.

The dandelion and dock have large tap roots but they spread but little from the root system. The milkweed has a rootstock which is responsible for a number of new plants each season, but by far the greater part of the new plants come from the seed which is carried by the wind for great distances, as is the dandelion. Wild mustard depends entirely on seed for propagation. Its seed as well as the dock seed, is chiefly scattered by becoming mixed with the grain and hay crop. It is then sown by man with the grain and grass seed.

It becomes evident that if we are to control these pests, we must prevent their seeding. In other words "nip them in the bud." We can do this and at the same time make them justify their existence by furnishing us with a wholesome food.

The dandelion will be our first problem. With the first sprout of green from Mother Earth's bosom, it will make its appearance. Take your basket and knife and sally forth. Cut just below the whorl of leaves through the fleshy tap root. Wash and clean, place in an agate or aluminum pot large enough to insure a generous supply of water. Add salt liberally and strips of bacon or salt pork. Boil until tender and you have a dish fit for a king, farmer, day laborer or the tired business man.

Next will come the dock. You must remember that only the narrow leaf is edible. There will be no difficulty in distinguishing between the broad leaf and narrow leaf members of the species. As the narrow leaf is very narrow and the broad leaf very broad. It is always well to combine this green with others, either dandelion, milkweed or horseradish, which we can scarcely class as a weed but makes a delicious "green."

The milkweed should be cut when from four to six inches above the ground. These shoots boiled in salt water until tender, drained and spread with butter or served with sauce, are every bit as delicious as the ever popular asparagus tips.

Wild mustard is as delectable as young turnips cooked with their tops on. And if you have not yet had these, you have missed one of the really good things Mother Nature has to offer the fagged appetite.

The secret of cooking and serving "greens" lies in thorough washing, boiling in plenty of salt and water, proper draining and attractive arrangement on dish. Hard-boiled eggs, sliced, make an attractive garnish for all greens. They may also be arranged around a platter of boiled ham or other pork.

All "greens" are rich in vitamins A and B, so necessary for growth in children and health in grown-ups. Serve them at least twice a week through the season and "kill two birds with one stone." Rid your farm of weeds and your medicine cabinet of "spring tonics" and "cathartics."

Cooking Peas

FOR those of us who can gather four peas fresh from the garden the cooking of the pods and using the water for cooking the peas will bring a surprise. Use only perfect pods and gather as soon as they are well filled. Half-ripe peas have less vitamin value than green peas. Wash pods well, boil 20 minutes and drain through a colander, pressing the pods well. Pour the water from the pods over the shelled peas and cook slowly from forty minutes to an hour. Dress in the usual way with plenty of butter and with or without thickening, as desired. Delicious. Hepsy Neff.

To keep the natural bright color of the fruit in preserves, rapid cooking is necessary.



How Shall We Save?

No. 6802.—Misses' dress. Sizes 16, 18 and 20 years. An 18-year size requires 3½ yards of 39-inch material. Price 15c or two for 25c.

No. 6803.—Sizes 16, 18 and 20 years. The dress with the cape for an 18-year size requires 4½ yards of 39-inch material. Without the cape 3½ yards will be required. For a how-to-illustrated 1-3 yard of material 39 inches wide cut crosswise is required. Price 15c or two for 25c.

No. 6829.—Sizes 4, 6, 8 and 10 years. An 8-year size with sleeves requires 3 yards of 39-inch material. Price 15c or two for 25c.

No. 6818.—Sizes 1, 2, 3, 4 and 5 years. A 4-year size requires 1½ yards of material 32 inches wide. Price 15c or two for 25c.

No. 6800.—Sizes 34, 36, 38, 40 and 42 inches bust measure. A 38-inch size requires 4½ yards of 39-inch material. Price 15c or two for 25c.

No. 6805.—Sizes 34, 36, 38, 40 and 42 inches bust measure. A 38-inch size requires 3½ yards of material 32 inches wide. Price 15c or two for 25c.

No. 6836.—Girls' undergarment. Cut in six sizes: 2, 4, 6, 8, 10 and 12 years. A 10-year size requires 1½ yards of 36-inch material. To trim neck and armhole edges as illustrated will require 2½ yards of lace or edging. Price 15c or two for 25c.

No. 6830.—Ladies' apron. Cut in four sizes: Small, 34-36; medium, 36-40; large, 40-44; extra large, 44-48 inches bust measure. To make the apron for a medium size will require 2½ yards of 36-inch material. To trim with bias binding as illustrated requires 4½ yards. Price 15c or two for 25c.

No. 6821.—Cut in four sizes: Small, 34-36; medium, 36-40; large, 42-44; extra large, 44-48 inches bust measure. A medium size requires 2½ yards of material 36 inches wide or wider. To trim as illustrated will require 6½ yards of lace or edging. Price 15c or two for 25c.

No. 6821.—Cut in four sizes: Small, 34-36; medium, 36-40; large, 42-44; extra large, 44-48 inches bust measure. A medium size requires 2½ yards of material 36 inches wide or wider. To trim as illustrated will require 6½ yards of lace or edging. Price 15c or two for 25c.

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Curing the Blues

SOME folks complain about the deadly monotony of their jobs—but on close inspection we find that other jobs, too, have a good proportion of routine. Granting this fact, it looks reasonable that the dullness might be relieved if one only used a bit of thought.

Housework, for instance, goes along better if our clothes are comfortable, clean and good-looking. Why do houseworkers wear dull, drab, shrunken garments when materials are so cheap and dyes in most of them will withstand many washings.

Being physically at ease does not relieve some sorts of boredom, as one girl found out. She used to buy something new, a dress, or some shoes, or even a scarf, when life began to look too blue. Such a plan might be indulged by any of us, if we didn't get the disease too often or if our tastes kept within our income. Otherwise the remedy might be worse than the disease.

Another, and I think a wiser, way to overcome that dull feeling is to do something different, if nothing more than using a different chair or room. Trying a new dish at every meal, or even once a day, may not entail much extra time or money but it surely ought to add zest to the plain task of providing the daily three squares.

Acquire the Habit

These days when radio and magazines bring such tempting suggestions, I fail to see how any cook can help experimenting. Often we can improve on other folks' recipes—though it may not be proper to boast too loudly.

Paint and lacquer, cretonne and scrim are pioneers in brightening one's view. Painting is recreation to me.

Perhaps George Eliot (or somebody else) was right in saying discontent comes from absence of aim. Certainly it does perk us up to see our progress, even along trivial lines. Do we use our opportunity to add to our material possessions, or widen our mental outlook, or deepen our innermost perceptions as we pass along from year to year? How about acquiring a happiness habit this summer? Vida M. Bates.

Drop Cookies

One-half cup sugar, three-fourths cup fat, one-fourth cup sweet milk, one teaspoon cloves, two cups flour, two cups oatmeal or graham flour, one-half cup molasses, two eggs, two teaspoons cinnamon, one teaspoon soda, one cup raisins.

Blend sugar and eggs—add melted fat—then alternately add the milk and flour, into which you have measured and sifted the soda and spices. Drop by teaspoon onto baking sheet and bake in moderate oven 380 degrees.

Graham Cookies

One cup wheat bran, one cup brown sugar, one-half cup sweet milk, two tablespoons butter (or lard), one egg, one-half teaspoon salt, one cup white flour, one-half cup graham flour, one-fourth cup molasses, two teaspoons baking powder.

Drop the mixed batter from a teaspoon onto a well-greased baking sheet. One-half hour in a hot oven. They are just fine. G. S. S.

Shades or pull curtains of material which light does not penetrate easily will keep out the light and make the room more restful.

Save all worn-out innertubes and tires. Besides using the innertubes for rubber bands they make both excellent kindling for soft coal or wood fires.

Overcrowding the refrigerator cuts down its efficiency. Air must circulate freely if the proper temperature is maintained.



GOOD HOUSEKEEPING FRUIT JAR RINGS

Loop your forefingers thru a Good Housekeeping Ring—twist it—stretch it—do it again! Then see it snap back to a perfect circle.

Here's a Ring that will keep your fruit and vegetables fresh and savory for years. No mould—no "flat sour."

Good Housekeeping Jar Rings are extra-thick, limber rubber, preventing "spurts" from ruining your work at the last minute. For hot or cold pack. Won't harden, crack or curl. Boiling can't make them spongy.

APPROVED BY GOOD HOUSEKEEPING INSTITUTE

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ON PLUMBING & HEATING SUPPLIES



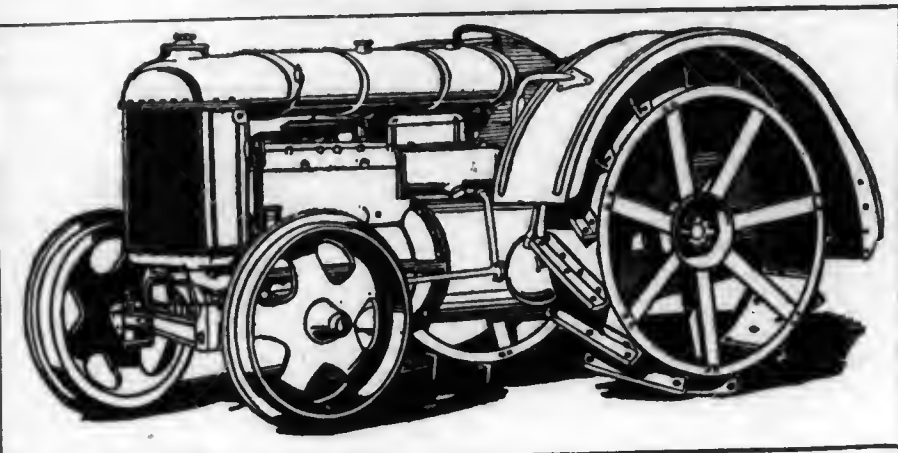
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Includes Bathtub, Porcelain Toilet and enameled Wash Basin.
Complete with all Fixtures and Five-Year Guaranteed Materials.

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J. M. SEIDENBERG CO., Inc.
254 West 34th St., New York

WOOL—BLANKETS—BATTING—ROBES
and a host of other goods made from your own wool. Also sold direct if you have no wool. Beautiful goods that are satisfaction and long wear. Write for catalog and samples. Prices from monthly. WEST UNITY WOOLLEN MILLS 167 Lynn St., West Unity, Ohio

To know what to buy—read the advertisements. They will keep you informed of the latest and best products of the manufacturers. Their aim is to meet your needs. You will find that time spent in reading the advertisements is time well spent. Read them regularly, with care, and when answering, mention Pennsylvania Farmer.

Fordson



Hundreds of the Improved Fordson Tractors are now being used by your neighboring Farmers in Pennsylvania, New Jersey, Delaware and Maryland.

IMPORTANT TO DEALERS
We still have some available territory open for live dealers. If interested communicate with us promptly.

G. M. STULL COMPANY
DISTRIBUTORS
CHESTER, PA.

WASHINGTON, D. C.

PITTSBURGH, PA.

G. M. STULL CO.,
Chester, Pa.

I am interested in the tractor.
I am interested in a dealership.

Please send complete information and literature.

Name _____
Address _____

Quality Always Commands Top Market Price

WHEN fungus diseases attack your crop, your chances to market quality produce at fancy prices are wiped out completely.

Adequate and frequent spraying with Bordeaux Mixture, mixed fresh as needed, will positively prevent fungus diseases.

Insure the purity and strength of your bordeaux mixture by using only

**Nichols Triangle Brand
Copper Sulphate**

The Standard of Quality—99% Pure

Write for free booklet on preparation and use of Bordeaux Mixture, with directions for making "instant" Bordeaux.

Nichols Copper Co.

40 Wall St.
New York

230 N. Michigan Ave.
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Get Rid of CANADA THISTLES

The Little Wonder Weed Exterminator will positively destroy them.

A spraying solution (not a chlorate); costs only 50¢ per gallon; will not rust the soil nor kill cattle. Write for free illustrated booklet.

REBER CHEMICAL COMPANY
Reading, Pa.

STANDARD GARDEN TRACTORS
A Powerful Tractor for Small Farms, Gardens, Florists, Nurseries, Fruit Growers and Poultrymen. **DOES A NEW WORK** Mowing, Walking & Riding Equipment and Lawn Free Catalog—Does Not Work.

STANDARD ENGINE COMPANY
Minneapolis, Minn. Philadelphia, Pa. New York, N. Y.
3271 Como Ave. 2425 Chestnut St. 144 Cedar St.

HAUCK WEED BURNERS
The modern, sure way to kill weeds. Use kerosene—burn them green—stems and seeds. Easy, clean, quick, cost half of old methods. Used by suburban homes, road commissions, parks, cemetery clubs, fruit growers, farmers. Does a man's work. Free Booklet.

Hauck Mfg. Co., 115 Tenth St., Brooklyn, N. Y.

Truck Crops

By G. S. WATTS

IF there are spots in the truck patch where the soil is thin, where spinach, onions, lettuce and so forth do not show a rich, uniform green color, time and money will be profitably invested in top-dressing with nitrate of soda. If the soil is not sour sulphate of ammonia may be used.

YEAR by year we have been picking stones from our truck land, often in the face of promises that the frost would bring up as many more each year. Yet the fact remains that two pieces which were thoroughly cleaned up both before and after plowing five years ago continue to be practically stone free.

Then we formerly had many small boulders just at the top of the subsoil. Broken plow points were a considerable item. The annoyance and loss of time was even more considerable. But the tractor operator carried green switches and stuck one into the soil as a flag wherever he hit a bad rock. The removal of these has been rewarded with a record of but one broken plow point since early last fall. This spring the safety release on the plow has not operated once.

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Could you give me any information in regard to planting hush Lima beans? Are they planted by machinery or by hand?

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Carroll county, Md.

BUSH Lima beans usually are planted by hand, but a satisfactory job may be secured with most garden seed drills when careful adjustments are made.

If the amount of fertilizer to be used is limited it probably will give the greatest return if used in the row. But care should be exercised to avoid direct contact with the seed. To mix with soil a hoe may be drawn through hand-made rows after the fertilizer has been scattered along. Machines should not drop the fertilizer directly on the seed or the seed directly on the fertilizer. The ideal place for the fertilizer is "at the sides and below" the seed.

Heavy applications, 500 or more pounds per acre, usually are broadcast and worked in before planting.
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The Story of Woodbine

(Continued from page 3.)

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THE MARKET PLACE

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Blanched or white asparagus is popular in some sections of the country and is produced by keeping the rows hilled with loose earth. The stalks are cut just as the tips break through the surface and it is used chiefly for canning. Green asparagus is not hilled and is cut above the surface of the ground.

When the stalk first comes through the ground the head or tip is solid and compact. As the stalks grow the head swells and finally spreads. The difficulty appears to be in growing thick stalks of good length before the heads spread. There do not seem to be many growers who can produce this strictly green stock. There is a difference in varieties and strains and some will make green stock better than others. Asparagus needs to grow quickly to be of best quality, and heavy applications of fertilizer are needed in most cases.

Yield per Acre

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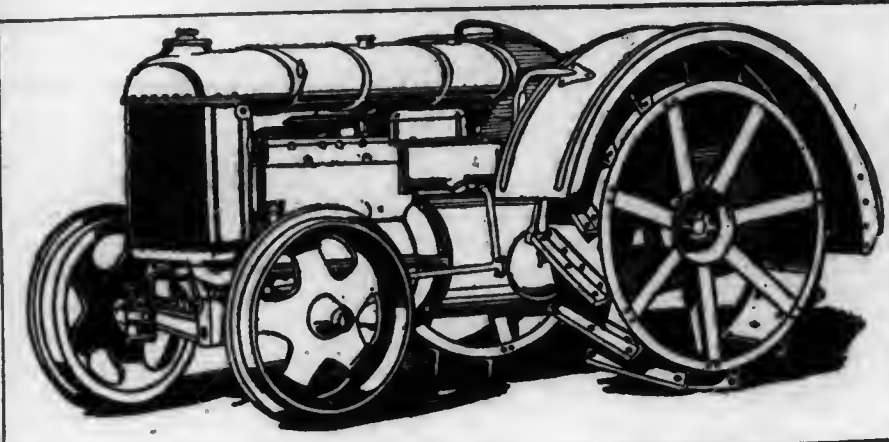
POST TOASTIES

The Wake-up Food



AT YOUR SERVICE is the attitude of every advertiser in this paper. Write them about your needs. Mention Pennsylvania Farmer.

Fordson



Hundreds of the Improved Fordson Tractors are now being used by your neighboring Farmers in Pennsylvania, New Jersey, Delaware and Maryland.

IMPORTANT TO DEALERS
We still have some available territory open for live dealers. If interested communicate with us promptly.

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HAUCK WEED BURNERS

The modern, sure way to kill weeds. Use barbed-wire burners—burns grass, weeds and roots. Easy, clean, quick, cost less and safe method. Used by suburban homes, road commissioners, parks, country clubs, fruit growers, farmers. Does a man's work. Free Booklet. Hauck Mfg. Co., 118 Tenth St., Brooklyn, N.Y.

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POST TOASTIES

The Wake-up Food



Quick New Energy



No more blue Mondays at Our house

"Wash day holds no terrors for me now. In fact, I look forward to it," writes a farmer's wife.

Imagine, a woman anxious to do the family wash! But let her tell why:

"When Fred (my husband) brought home a new shiny power washer on my birthday, he chased away blue Monday. Now it's fun to do the washing. My clothes are cleaner, whiter and I find they wear longer because I don't have to rub to get out the dirt.

"But that's only half the story. I got more than a scientific machine—far more than a tub, a motor and wringer. I got freedom! Out of that washer also comes extra hours

for recreation, sewing, visiting; relief from back-breaking toil at the scrub board; even a better disposition.

"Now, I have time to do things and go places. I don't have to spend half the week resting up from wash day. My washer saves my time and strength. Fred says I'm a different woman. I wish all

farm women had a machine like mine."

What about it men? Is your wife's time worth anything—can you match her health and happiness for the comparatively few dollars it takes to get a power washer? Think of the machines **you** have that lessen your own work. Give your wife a break. Invest in a new power washer. She may say you can't afford it but after she has used the machine for a week's wash, she'll wonder why you didn't get one before.

But be sure to get a **good** washer—one you can depend on. That is the only kind advertised in this paper.

ONLY RELIABLE WASHING MACHINES
ARE ADVERTISED IN THIS PAPER



The Man You Buy From IS FULLY AS IMPORTANT AS THE USED CAR YOU BUY

Many motorists, seeking high quality as well as low price, *prefer* to buy fine, powerful used cars.



The main point to remember is to buy your car from a reliable merchant—the local Buick-Marquette Dealer.

There are tremendous values in used cars—greater values today than there have been in years—and your Buick-Marquette Dealer will gladly assist you in making your selection.

Go to him for your used car, just as you'd consult any leading professional man in your community, knowing that his good name is a definite assurance of satisfaction.

You'll find that he has an unusually wide selection of used Buicks and other makes

as a result of the remarkable demand for new Buicks and Marquettes.

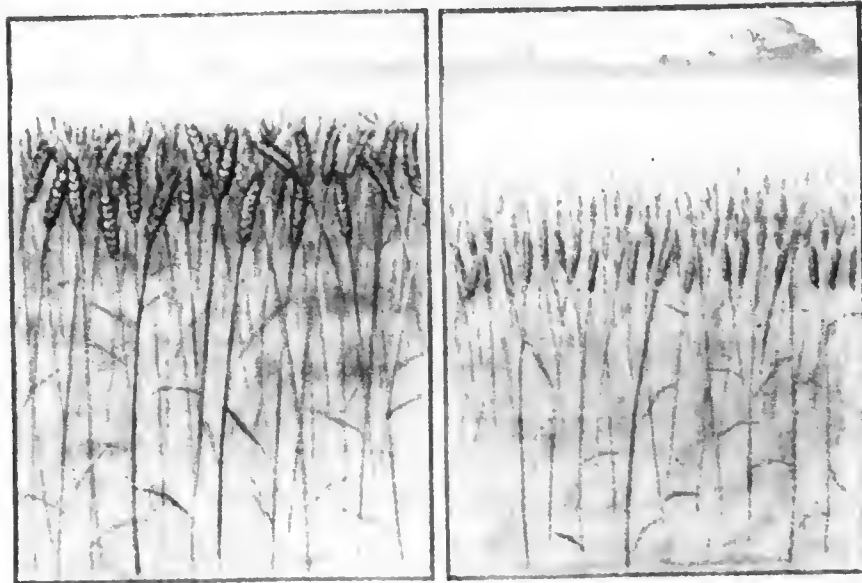
You'll find that the Buick-Marquette Dealer conditions his cars carefully—prices them fairly—and offers them on the most reasonable terms.

You'll find that he is an expert in transportation, giving maximum value, whether you wish to pay \$200 or \$2000.

The man you buy from is fully as important as the used car you buy. Real satisfaction awaits you at your Buick-Marquette Dealer's. See him—*today!*

BUICK MOTOR COMPANY, FLINT, MICHIGAN
Canadian Factories Division of General Motors Builders of
McLaughlin-Buick, Oshawa, Ont. Corporation Buick and Marquette Motor Cars

Record Breaking Results -from Crops or Tires



DIFFERENT STRAINS OF WHEAT
UNDER IDENTICAL CONDITIONS

The illustration to the left shows one of the hardier strains of wheat, as developed by State Agricultural Experiment Stations and the U. S. Department of Agriculture.

The illustration to the right shows an average strain growing under identical conditions. Note the difference.

Write us for instructive information as published by the Department of Agriculture on growing proved strains of Spring and Winter wheat. Address:

FIRESTONE TIRE & RUBBER COMPANY, AKRON, OHIO.
Los Angeles, California, or Hamilton, Canada.



TIRES · TUBES · BATTERIES · BRAKE LINING

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JUST as the U. S. Department of Agriculture has developed the strains in crops that give you the greatest yield per acre, so has Firestone developed Gum-Dipped Tires that give you the greatest tire mileage and endurance known.

For example, Firestone pioneered the Balloon Tire, which today contributes so much to motoring comfort and economy . . . Firestone originated and patented the exclusive Firestone process of dipping cords in rubber gum, which saturates every fibre of the cord, minimizing heat and friction and doubling the flexing life of the cords . . . Firestone was the first to put a non-skid tread on tires and today gives you the toughest, longest-lasting, safety tread made. Through constantly pioneering new and better methods of tire building, Firestone has added thousands of extra miles to tires without extra cost to the user.

Firestone Gum-Dipped Tires have broken all world records for results in safety, economy, endurance and mileage.

Demand this extra mileage in the tires for your car and truck. See the Firestone Tire Dealer in your community. He will save you money and serve you better.

Listen to
"The Voice of Firestone"
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May 31, 1930

PENNSYLVANIA FARMER

(761) 17

Orchard Windfalls

By S. W. FLETCHER

A GROUP of prominent apple growers met with the Federal Farm Board in Washington on May 14, at the invitation of the Board, to consider apple marketing problems. These men were selected from all the most important apple districts of the country.

Pennsylvania was represented by Chester J. Tyson, of Gardners, New Jersey by Lester Collins, of Moores-town; West Virginia by D. Gold Miller, of Gerrardstown; Virginia by Harry F. Byrd, of Winchester, and C. Purcell McCue, of Greenwood; New York by Paul Judson, of Kinderhook, and M. C. Burritt, of Hilton.

This is "not an advisory committee, as provided for in the Agricultural Marketing Act, but rather a general committee to work with the Farm Board in the development of a national program for cooperative effort among apple growers."

Each man was asked to report the present status of and the outlook for cooperative marketing of apples in his district. The Pennsylvania member reported that most of the apple growing in his state is for local markets, hence there is very little opportunity for cooperative marketing; but that, in the wholesale districts, there are several apparently successful local cooperatives, and there have been as many more that have failed. In his opinion, there may be room for a number of other local cooperatives in the near future, but the possibility of effecting a regional organization in Pennsylvania is quite remote.

The New Jersey representative reported the failure of the central sales organization in that state, and the Western New York representative related a similar experience.

There was no sentiment whatever for the federation of local cooperatives into a regional sales agency, in the East, however successful this may have been in the West.

The Committee was asked by the Farm Board to make concrete suggestions as to how the Board might aid apple growers in the marketing of their product. The blunt reply of one committeeman, "By leaving us alone," seemed to reflect the majority opinion of those present. The Committee expressed itself as against the organization of a national master cooperative for apples, as has been provided for certain other commodities; as favorable to the regional organization of cooperatives only after a thorough investigation indicates that there are a sufficient number of locals to justify it; and as favorable to the organization of local cooperatives only when they develop out of the needs and by the initiative of the growers themselves. The Committee urged that more attention be given to standardization of grades and to the encouragement of better grading and packing.

This counsel may not be wholly acceptable to the Federal Farm Board, but it is common sense, and undoubtedly it reflects the judgment of a majority of apple growers.

Massachusetts Deer Law

Massachusetts has the best deer law in the United States, from the point of view of the fruit grower and farmer, and in all equity. In most states, including Pennsylvania, the pressure exerted on the legislature by sportsmen has not made it possible for the fruit grower to kill deer that damage his trees unless he actually sees them nipping or rubbing the trees. Since deer work mostly at night, this is practically impossible.

The Massachusetts law authorizes the fruit grower to shoot deer that are damaging trees, or that are about to damage trees. This gives him sufficient leeway to protect his property. Some Pennsylvania fruit growers have secured permission from game wardens to kill deer on their property at

any time, but the law itself does not authorize this.

The Massachusetts law goes further; it compensates the fruit growers for damage caused by the state's livestock. The damage is assessed by a committee. The owner of the orchard selects one member of the Committee, the State Game Commission another and the County Commissioners the third. A more or less standardized procedure, or schedule of rates, has been devised; the grower is allowed so much per tree of a certain age and variety, and a certain degree of injury, whether bark rub, limb split, nipping, etc. The compensation money is derived from license fees.

Is not this the next step in Pennsylvania?

Apple Blossom Festivals

These innocent diversions now are being staged all over the country except in the Northeastern states. The nearest one is at Winchester, Virginia. They are good publicity for the apple industry, which needs all the advertising it can get. They develop sympathetic understanding between the fruit growers of a district and their trading center. They also promote cooperation among the growers. It is reported that 300,000 people saw the Shenandoah Apple Festival at Winchester. It takes a good deal of work and some money to stage one of these festivals, but it is worth while.

No other industry has a more natural or more attractive means of publicity. But fruit trees are fully as attractive when laden with ripening fruit as when in blossom; it would be equally desirable to stage an Apple Harvest Festival in the fall, (that is, in years and in places where there actually is a harvest to gloat over.)

Why not have Apple Blossom Festivals and Apple Harvest Festivals in Pennsylvania? In a state so largely devoted to local market fruit growing there are special reasons for promoting this desirable contact of town and country—the reason of self-interest, if no other. It is not necessary to have as ambitious an affair as the one at Winchester. In our state, smaller local displays would be more practicable, to include only the natural trading district. The fruit growers and Chambers of Commerce of Reading, West Chester, Lancaster, York, Gettysburg, Chambersburg, Allentown, Wilkes-Barre, Erie, New Castle and Pittsburgh, and other centers of fruit growing, should consider this means of increasing the demand for "home-grown fruit."

Thinning

It now seems likely that many Pennsylvania apple growers will need to thin their fruit in order to get a grade that will command a premium. In the experience of Professor F. H. Beach, of Ohio, who kept records for several years, this costs two to seven and one-half cents per bushel of harvested fruit, with an average cost of three and one-half cents. But the fruit has to be picked anyhow, so it is hardly fair to charge all this expense against the cost of thinning. Dr. J. R. Magness has recently reported on experiments in Washington and Virginia which indicate that about 50 healthy leaves are required to produce one large fruit of Delicious, 30 for Winesap and 25 for Jonathan. The food material that makes the apple grow is manufactured in the leaf and seldom is transported much more than 20 inches from the leaf. Hence the importance of having an abundant and healthy leaf surface near the fruit, and a reasonable ratio between the number of leaves and the number of fruits. With summer apples, it is not wise to wait until after the June drop before beginning to thin, if the apparent set of fruit is heavy; with winter varieties, thinning may be deferred until after the June drop.

Pyrox Pays Better than Home-Mixed Sprays, Grower Says

IN comparative tests, hundreds of successful growers have proved that Pyrox is not only easier and safer to use than messy home-made bordeaux mixtures—but is also cheaper. Pyrox-protected potatoes pay extra cash from extra yields of better quality.

The experience of Mr. C. S. Newcomer of Chambersburg, Pa., is typical of the results obtained by Pyrox users. He writes:

"This season I made a test comparing Pyrox with home-made bordeaux. Seed, fertilization, cultivation and soil conditions were the same. However, my yield on Pyrox-sprayed plots was 385 bushels per acre, an increase of 70 bushels over the plots sprayed with home-made bordeaux which yielded only 315 bushels per acre.

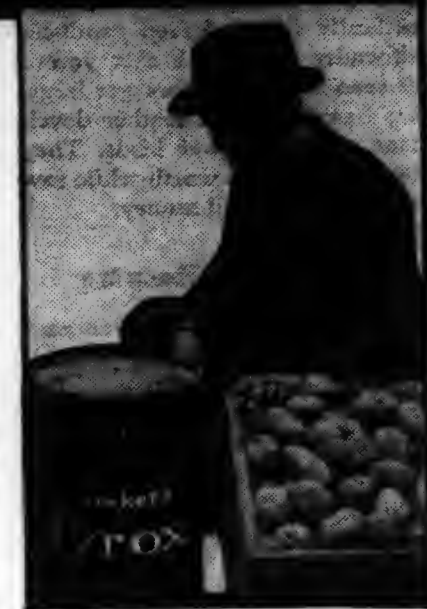
"Pyrox is easy to use—I need but a few minutes to put the material in the spray tank and I am ready to spray. There is no nozzle trouble. Pyrox stays on the vines through hardest rains, and goes farther. Because of its soft, smooth, creamy fineness Pyrox will go through small holes in the nozzle disc resulting in greater ease in developing and maintaining pressure.

"My Pyrox-sprayed potatoes will show, at \$1.00 a bushel, at least \$70.00 more per acre. They are more uniform in size, smoother and cleaner in appearance than those sprayed with home-made bordeaux."—C. S. NEWCOMER.

**Gets 15¢ to 20¢ per bu.
Above Market Price**

Mr. H. C. Rineard, of York, Pa., writes:

"I raise large acreages of corn, potatoes, wheat and hay so I must make all my labor count. That is one reason why I like Pyrox—because of its ease of preparation and application



Mr. C. S. Newcomer
of Chambersburg, Pa.

as compared with home-made bordeaux.

"This is my second year using Pyrox and I certainly find that it gives me the control of insects and disease on my potatoes, and also improves the quality. I have been getting an increase of 100 bushels per acre, and an average of 15 to 20 cents per bushel better than the prevailing shipping price for my Pyrox-sprayed potatoes."—H. C. RINEARD & SON—November 6, 1929.

At \$1 a bu., Mr. Rineard's extra profit obtained with Pyrox amounted to \$100 per acre! And this is in addition to the extra price obtained per bushel.

Pyrox kills bugs, controls blights, and other diseases, and stimulates plant growth. It is quick and easy to use. Sprays in a fine mist—does not clog nozzles. Sticks like paint to plants, even through severe storms. Now lower priced than in 31 years.

Write us for facts which prove that you can actually cut your production costs—get more profit from your potatoes—by spraying with Pyrox. Please mention your potato acreage.

BOWKER CHEMICAL COMPANY
419 Fourth Ave., New York, N. Y.



THE YOUNG PEOPLE

The Boy Scout Cavalry

"COME on fellows, let's get started on our sixty-mile hike," shouted Bill Mackey, of the Jackson Heights Boy Scout Troop, a red-headed little fellow who, like a hummingbird, never was satisfied to remain in one spot long enough for mosquitoes to scent him as a victim.

Sixty-mile hike? you ask in amazement. Surely no one in this day of automobiles and rapid transportation would start out on a sixty-mile hike.

Ah, no wonder your astonishment; I haven't told you, but the Jackson Heights troop is a mounted organization! One of the few, if not the only one of its kind in the country.

"Hey Paul, hold this bucking bronco till I get on, will you, or he might start for the barn without asking my permission."

"Is that bedding roll of mine still holding?"

"George, see if the bridle on Molly is twisted in front."

"Everybo-o-ody ready? Twe-e-e-t!" and under the leadership of their scoutmaster, Rev. C. C. Pearce, pastor of the Jackson Heights Methodist Episcopal Church, Tippecanoe county, Indiana, twenty-one healthy and vigorous leaders of the coming generation galloped away for three pleasant days close to the bosom of Mother Nature.

This novel troop of boys was organized three years ago when Rev. Pearce arrived in the country community to organize three weak, struggling country churches into one strong institution.

To the Rescue

Then arose the problem of arranging a program which would hold the boys from twelve to eighteen years of age in close contact with the church. The Boy Scouts of America was called to the rescue, and a troop organized. With the cooperation of the fathers it was arranged so that each youth had a horse available for field trips and hikes. Sixteen boys formed the charter group, which founded this novel method of scouting, and the membership has increased until the troop now is made up of thirty-two bright-eyed, quick-minded youths from nearby farms.

Each spring the boys spend three or four days on a sixty-mile hike, and during the summer a two weeks' camp is held along a nearby stream. It is on these trips that many merit badges are won, and the boys have an opportunity to study the secrets of nature, woodcraft, first aid, swimming and other merit badge requirements.



This fireplace in the Scout room of the church was built by the boys.

quirements gained only in heart-to-heart living with nature.

However, these hikes are not the only study hours scheduled for the members of the troop. Through the donation of \$1,000 by Thomas Miller, a farmer in the community, a room in the new church has been outfitted by the boys and converted into their scout headquarters. Twice a month during the long winter months the boys assemble before the huge fire-



Members of the mounted Boy Scout Troop.

place for meetings, study and recreational activities.

The fireplace was constructed by the boys and each piece of material embedded in the structure has a particular meaning of its own. The main part of the fireplace is constructed from geodes, limestone formations, which have been brought 107 miles. The large rock in the center, below the mantel, represents the scoutmaster and those on either side are his assistants. The thirty-two stones surrounding these center geodes are markers for the thirty-two scouts in the troop at the present time, while the sixteen geodes above the mantel represent the charter members of the troop.

Happy Memories

The geod just under the center of the mantel, which has the features of a man weathered into its surface, is a memorial to Thomas Miller who made possible the scout headquarters. Small pieces of mirror embedded in the mortar remind the boys of the many happy days they have spent on the shores of nearby lakes, small rugged stones call to mind the many hills and valleys traversed, and large brightly colored marbles stand for the many games participated in by the scouts. Twelve stones form the hearth of the fireplace and these keep the twelve Scout Laws before the boys at all times.

The light fixtures, with the scout emblem cut in them, were made by the scouts as also were totem poles and many other emblems of decorative and instructive value which adorn the room.

One of the requirements for membership in the troop is that the scout must attend one church service each Sunday. A scout is true to his word and a scout is loyal; thus, these scouts are loyal to the church which provides them with their scout room, and to their scoutmaster, Rev. Pearce.

C. P. Allen.

Try These On Your Friends

What letter is good to drink? T. What two letters name a written exercise? S-A.

What two letters name a vine? I-V. What three letters do you use when you play hide and seek? I-C-U.

What four letters name a title of a governor or ruler? X-L-N-C.

As round as a cup, as deep as a

cup, yet the whole lake of Michigan couldn't fill it up. A coffee strainer. What's a thing without an end? A bowl.

When may a train pass over you and never hurt you? When you are under a bridge.

What town fits in a bottle? Coric. (Ireland.)

National Greetings

THE equivalent national greetings of some other countries to the English "How do you do?" are interesting. Translated they are:

French—How do you carry yourself?

German—How do you find yourself?

Swedish—How can you?

Dutch—How do you fare?

Italian—How do you stand?

Spanish—Go with God, señor.

Russian—How do you live on?

Egyptian—How do you perspire?

Polish—How do you have yourself?

Arabian—Thank God, how are you?

Persian—May thy shadow never grow less.

Your Last Chance

MAY 31st, you know, is the last day to receive contributions on our contests. In case you missed seeing the other notices, here they are again:—

Cartoons—1. The Kicking Cow. 2. The Baky Mule.

Letters on—1. Who Would You Rather Be? 2. My most Exciting Adventure.

All cartoons must be on plain, unruled paper; using India or black ink. Be sure to give your name and address. Letters should be written in ink.

Many readers are sending a contribution for each contest. You may do that too. There will be three prizes for each contest.

Hurry your letter to Young People's Editor, Pennsylvania Farmer, 7301 Penn Avenue, Pittsburgh, Pa.

OPEN FOR BUSINESS

A pretty good firm is Watch & Wait. And another is Attit, Early & Late. And still another is Doo & Dairet. But the best is probably Grin & Barett.

MEMORIAL DAY

DO you know why loyal boys and girls, the thirtieth of May, March through the streets of every town with flags and banners gay? In their hands they carry flowers fresh, and all together meet To sing, "My Country, 'Tis of Thee," in voices clear and sweet. Then they hear men tell of soldiers brave who boldly marched away. To save our land when danger came, and duty's call obey. So the children come to honor them upon Memorial Day. And bring their flowers with loving hands on soldiers' graves to lay. We think of those who gave their lives and say this earnest prayer, "Dear Father, fill all hearts with love which brings peace everywhere." —Louise M. Ogilvie.

Little Folks' Corner

Prize-Winning Poems

Mother Hen and her ducklings called forth many poems. Three members of one family sent in poems and we start the list with them.

From George Council, age seven.—
When you read our poems
We know you will snicker.
But we'll all be poets,
Just wait till we're bigger.

Dorothy Council, age eleven, says—
Oh, Mother Hen, be careful
Your neck don't break in two;
For if harm should come to you
What would your babies do?

The other member of the family, Mabel, is thirteen. She writes—
The mother hen is careful
With all her babies dear,
Why shouldn't she be fearful
When she knows that danger's near.

Now for the others—
Here's Mrs. Hen with her babies dear,
She can't understand why they act so queer.
She just stands there and clucks and chucks
How can she know that they're little ducks?

Poor old hen
Don't you fret;
Little ducks won't melt
If they get wet.

"Oh, dear! I'm sure you will be drowned,
I never saw such tricks!"
"Please, Ma'am," said they, "I think we're ducks."
"I don't believe we're chicks."

"Babies! Babies! Come out of there
You'll get wet and then beware!"
"But, Mother dear, it's such a treat
For little ducks to get wet feet."

—Ethel Coale.
—Mildred Craner.
—Sarah A. Stoltzfus.



Emma Hartman



Ruth Hartman

With a frightened stare the hen stood there,
Calling her darlings away;
But they kept right on toward the old mill-pond.

"Quack, quack! It's fun," they say,
Martha Palminter.

Mother Hen, that wise old bird,
Gives the message you've always heard:
"Don't wet your feet or you'll be ill."
But restless feet just can't stay still.

—Ruth Levine.

The old barred hen stands fretting on the brink,
Poor old soul just doesn't know what to think!

Her twenty foster chicks have taken to the water
And every single chick has forgotten what was taught her.

—Louise Kilmer.

A chicken always stays on land
And never goes near the water.
Now aren't you sorry for Mother Hen
With ducks as sons and daughters?

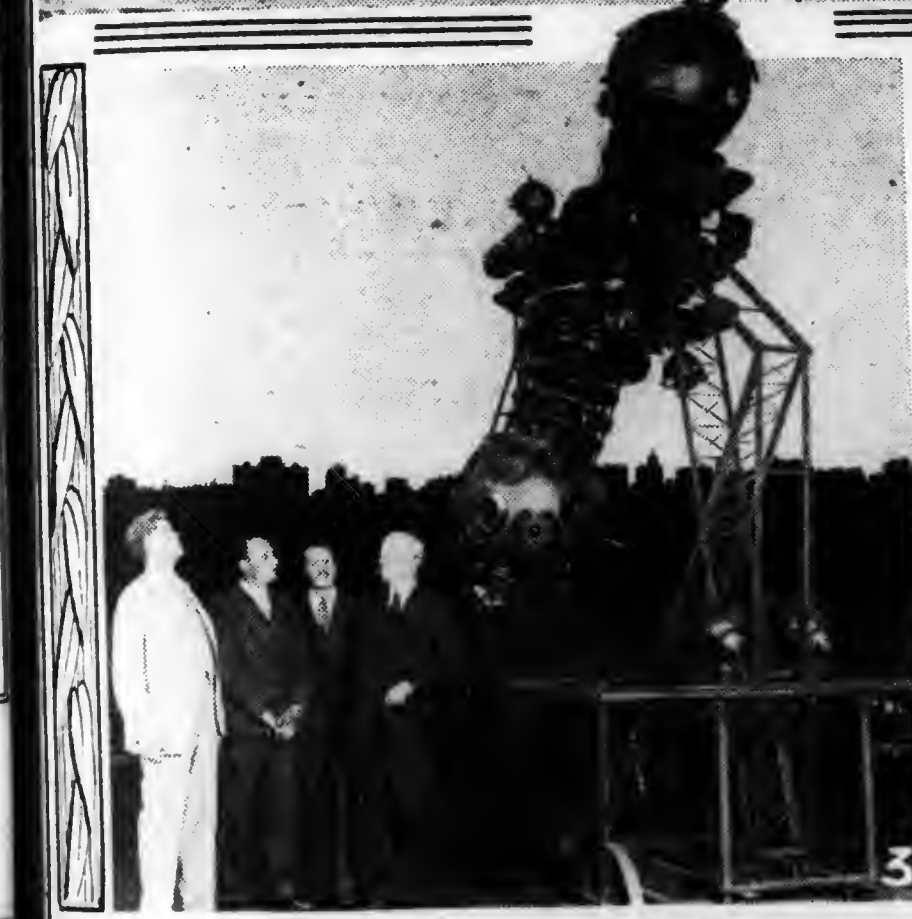
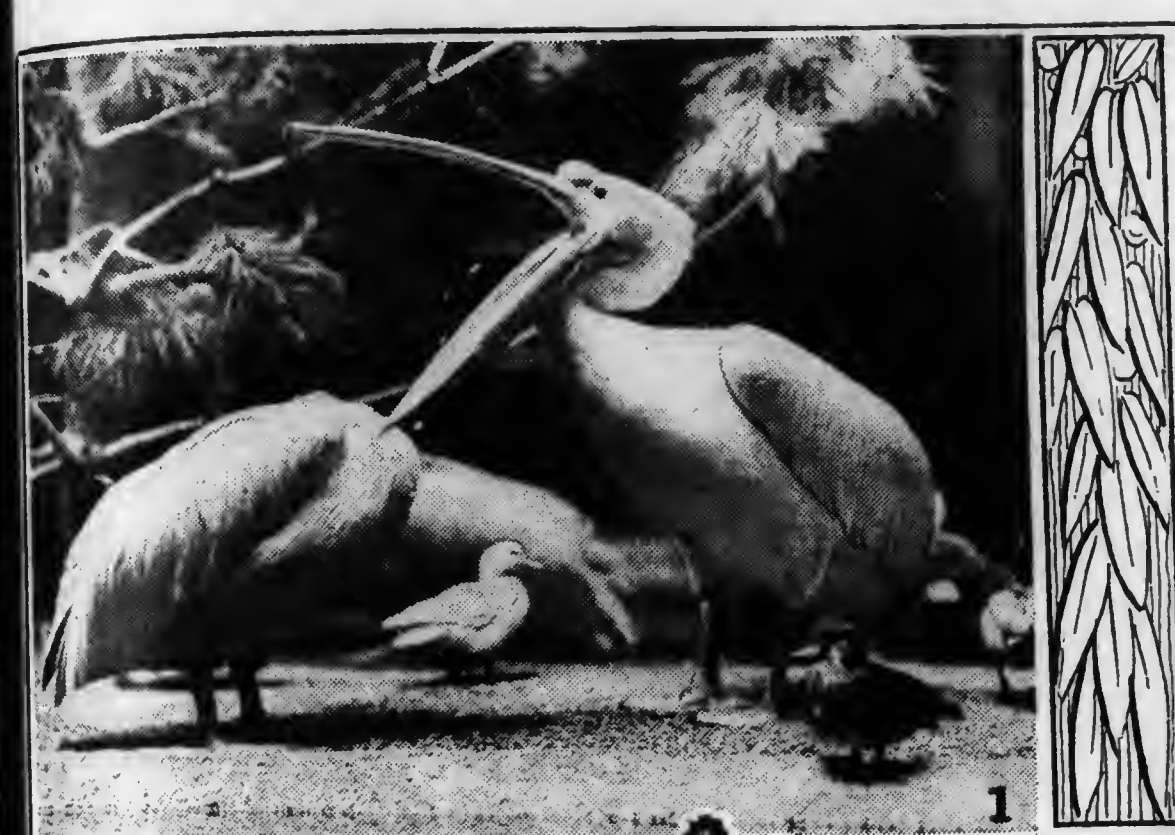
—Ruth Elinor Smith.

PRIZES SENT TO THESE FOLKS

Coloring Sailor Boy

Thelma Shorts, Kathryn Hepburn, Josephine Vandy, Ruth Foust, Edna Wallace, Bernice McDowell, Edna Houseman, Bernice Acklin, Irene Wilburn, Emma A.

PASSING EVENTS IN PICTURES



(Copyright by Underwood & Underwood)

1. Chicago, Ill.—An interesting view of a Pelican and a young wild duck—the largest and smallest water birds in Lincoln Park.

2. New York City.—Photo shows, left to right, the New York Daily News building, the Chanin, and the great Chrysler, tallest structure in the world. This shot was made from Tudor City looking west.

3. World's finest planetarium opened in Chicago. Photo shows, left to right, Prof.

Phillip Fox, Joseph A. Beuttas, builder, Ernest Grunsfeld, Jr., designer, and Max Adler, the donor, in front of the huge projector. It throws points of light on a huge ceiling and makes them move exactly as the stars in the heavens.

4. "Queen of the Seas" from the air.—Unusual view of the U. S. S. Leviathan steaming into New York harbor. The shot was made from the Los Angeles.

5. Cardington, Eng. Photo shows, in the foreground, Britain's dirigible pride, the R-100, lashed to the mooring mast, while spectators rush out to greet the Graf Zeppelin, the first Zep to fly over England since the War.

6. One of the feature attractions at the Outdoor Life Show, held in Chicago recently, was a bear cub, as timid as a kitten and liking milk about as well. The little cub is shown at feeding time.

Farmer's Business Letter

CROP conditions continue generally favorable. Business conditions show no improvement so far as statistics of production and trade go. However, a better feeling in regard to business is apparently settling in. This is important if it is true, and if it continues. Current trade as well as plans for the future depend on confidence, and once it is restored business gains are certain. To this extent the outlook is better.

Grain Trade

Grain markets showed a trend to the strong side this week, but at the close were largely lost. The better feeling was based on increased demand for North American wheat, and evidence that the world carry-over would not be as large as expected.

On the other side, liberal stocks on this continent stand in the way of the development of a very strong upward trend. But bearing prices is regarded as risky business, in view of the ever-present threat of Farm Board support to check price declines. United States exports of wheat and flour for the crop season to May 1 total 130,795,000 bushels compared with 136,619,000 a year ago. A liberal supply of corn on farms, together with marketing up to current demand, holds the corn market in check.

The Millers' National Federation meeting in Chicago this week went on record as opposed to the proposal that the United States return to a purely domestic basis of wheat production. In a resolution the Federation pointed out that wheat consumption in the United States is now nearly 90,000,000 bushels less per annum than in pre-war years and urged the Farm Board to consider the propriety of "engaging in a nationwide campaign to increase the consumption of wheat and wheat products in the country."

Expanding Grain Program

The intention of the Farm Board to expand its operations in handling this season's wheat crop is indicated in the purchase of two large grain corporations for its subsidiaries. Title to the Hall-Baker Grain Company at Kansas City, with branches in the Southwest, has passed to the Farmers' National Grain Corporation, for a consideration reported to be \$3,000,000.

The Hall-Baker outfit was a private grain marketing agency of the highest standing and operating on a very large scale, having export connections. This purchase confirms the announced intent of the Farm Board to enter the export field.

In addition, the W. C. Mitchell Company, of Minneapolis, Duluth, Great Falls, Mont., and Spokane, Wash., has been purchased for the Farm Board's Northwest selling agency, the cooperative Farmers' Northwest Grain Corporation.

Another step was taken toward perfecting the Farm Board's grain marketing organization when the Omaha Grain Exchange admitted to membership the Farmers' West Central Cooperative of Omaha and the Equity Exchange Grain Company of Kansas City, two of the board's subsidiaries.

These developments add to the significance of the Farm Board's grain marketing program, and strengthen its

position as the dominant factor in grain trade at this time.

Cattle Gain

The cattle market showed substantial improvement this week, with the supply at leading points about in line with recent weeks. Chicago had 43,000 head against 40,000 last week and 42,000 the same week last year. Average price of steers advanced to \$11.50, a gain of half a dollar over last week, which was the low point so far this year.

The cattle market is now 50 to 75 cents higher than at the opening of last week, that gain holding good on all kinds, heavy steers, light steers, common steers and butcher stock. Top steers brought \$14.35 this week against \$14.50 last week, and top yearlings sold at \$13.75. Bulk of steers are selling at \$10.50 to \$12.50.

Stock cattle moving to the country are lighter in weight than a year ago, and are costing \$2 to \$2.50 a cwt. less. And there is some indication that the tendency is to market before cattle are finished in order to avoid a heavier loss should prices continue to decline.

The records show a decided drop in

the percentage of choice to prime steers in receipts, some decrease even in the percentage of good steers, and a marked increase in the percentage of medium and common steers. This, of course, means less beef and poorer beef, and may mean that future supplies will not be as large as estimates have been running. This is the one bright spot in a cattle market otherwise featured by weakness. Some in the trade expect to see the bulk of steer sales work \$2 lower, while others believe that the market will hold fairly well except for some further decline on the lower end as grass begins to show in the quality of the beef.

Hogs Steady

The hog market shows a trend neither up nor down. Losses one day are likely to be made up the next, the contrary being likewise true. For a long time average prices have been maintained at a little above \$10—a good price as prices go these days. Average price of hogs for the week at \$10.05 was the same as last week and only 75 cents below a year ago.

Eleven markets had 484,000 hogs this week against 490,000 last week, 538,000 the same week last year and 600,000 two years ago. Marketing at these points so far this year is over half a million head under last year.

May receipts of hogs will be among the smallest on record for a month. These continued light run and convincing packers that they need look for much expansion in market and thus lending strength to the look.

Receipts at eleven points so far this month are only about 40,000 head or less than for the same date in April. For the past five years May receipts have shown an average increase of 100,000 over April receipts. Only four in the past twenty years have receipts been smaller than April receipts.

Practically all the trading in the future market was confined to the September option. Light hogs for September delivery sold at \$10.20 and medium weights at the same price. These prices being about the same as last week's transactions. The early part of the week at the mainder of this month sold at \$10.20 but as the week progressed prices were obtainable at a somewhat lower figure.

Advance in Lambs

A striking feature of the lamb market is the falling off in the marketing of California springers. It is estimated now that the eastward movement of California will be about 25 per cent short of what it was last year, that much under expectations. The reason is the drought of last year resulting in a much larger proportion of lambs too small and thin for market. This is showing up in the market.

So far Chicago has had only 100 lambs from California against 1,000 on the same date last year. Thus there has been a spurt in prices, which may prove to be only temporary. Lamb prices irregular with offerings showing 65 to 85 cents this week, while sheep were a gain of \$1.15 to \$1.25.

Western states are reporting a lamb crop, Montana estimates run around 90 per cent. Practically all lambs have been contracted. Sheep wool has been sold, at a range of 24 to 24 1/2 cents, around 40 per cent less than was received last year. On consignment wool to the Farm Board's agency is reported as slow divided.

Low By-Products

One factor in the live stock situation is the low by-product market. It is off a third or more as compared one and two years ago, and wool prices are 70 to 80 per cent lower. The prices are about a third below the level of the past two or three years, and grasses show approximately the same decline.

The price of a hide per pound is a little above the price of a steer pound, where normally hides sell at twice as high as good steers, and war time hides were three times high. Low by-product markets have worked against meats showing a full decline in livestock prices.

FEED MARKET

The following quotations are for feed and nearby shipment May 26, according to the U. S. Bureau of Agriculture. They show the approximate cost of feed per ton (all in 100-lb. bags and grain per bushel in carlots and draft basis delivered on track at Philadelphia and Scranton rate points): Bran, \$32.50 to \$35; standard middling, \$32.50; flour middlings, \$35; cotton meal, 43 per cent, \$18.50; gluten \$37.50; No. 2 white oats, \$4; No. 1 low corn, \$9c.

Philadelphia Produce Review

The Philadelphia egg market opened fractionally higher on account of comparatively light receipts and a demand. Prices were fairly well maintained on good quality stock but very lots showed heat defects and very yolks. As a result receivers were slow to move this class of goods at close to cost. Buyers were very close to quality and restricted to buying to immediate requirements. The pressure to sell and the light lower prices. The market on eggs held steady but the volume of goods moved was light. Lack of confidence and buying support still held. Production is being maintained and the into storage movement active. Storage packed stock was offered and the early part of the week at \$2.20 but as the week progressed prices were obtainable at a somewhat lower figure.

The New York egg market opened steady to firm but was unsettled during the middle of the week and closed somewhat easier. Mixed colors and average run of eggs averaged about the quarter to one cent lower but the top grades were fairly well maintained. Late in the week nearby white eggs were quoted at 25¢ per dozen, nearby browns at 24¢ per dozen, and mixed colors at 20¢ to 27¢.

Poultry

Receipts of live broilers were liberal throughout the week on the New York market. The demand was fair and prices irregular with offerings showing wide range in quality. Colored fowls were quoted at 26¢ to 28¢ per pound, Leghorns at 26¢, broilers at 22¢ to 45¢. Squabs at 40¢ per pair. Fresh dressed poultry from nearby markets were light but the demand was slow. Nearby broilers sold at 40¢ per pound and the best squabs at 45¢.

The asparagus market in Philadelphia was irregular. Early in the week supplies were heavy and prices dropped sharply. Later receipts were somewhat lighter and a better demand developed, especially for long green spears. Late in the week Pennsylvania and New Jersey very large stock sold at \$2.25 to 2.75 per dozen bunches with strictly green stock bringing \$3 to \$3.50. Large stock sold at \$1.50 to \$2, medium at \$1.50 to \$1.75 and small at 75¢ to \$1.

Strawberries

Truck receipts of strawberries from Eastern shore sections were very liberal during the week and on several days the market dropped sharply. Late in the week the quality of the berries showed some improvement and this along with lighter receipts caused prices to advance. There was a great difference between the late and early morning market and in some cases early sales were as much as \$2 per bushel higher on the same quality berries as those sold later.

The peak of the season for early berries from Virginia has passed and the berries from that section were of poorer quality than those from Delaware and Virginia. The berries that are bringing top prices are generally from the Chesapeake. Missionaries and Heddins did not generally sell as high as the others. Pennsylvania and New Jersey spinach growers had a disappointing week since the demand for spinach was very light and supplies accumulated from day to day. Some stock carried over was finally hauled home by the growers and other lots sold as low as 10¢ a bushel. Dealers believe that the market will improve somewhat this week unless receipts are too heavy. Late in the week good spinach was scarce and brought \$3 to 40¢ a bushel.

Wool Market

Boston, May 23.—The wool market has been decidedly more active than for several weeks and the demand for American wools has been advanced 10 to 20¢. Territory wools were slightly stronger with the range of prices unchanged. Asking prices have been advanced 10 to 20¢ a pound in the grease on South American cross-breeds. Some sales have been closed at prices one cent higher than quoted during the previous week. Inquiries have been received on Australian merino wools but bids all fell short of asking prices.

active at the same range of prices as during the previous week. Demand for 56s was very dull. Strictly combing 48s, 50s Territory wools were slightly stronger with the range of prices unchanged. Asking prices have been advanced 10 to 20¢ a pound in the grease on South American cross-breeds. Some sales have been closed at prices one cent higher than quoted during the previous week. Inquiries have been received on Australian merino wools but bids all fell short of asking prices.

Domestic Wool Quotations
Grease Basis, Ohio and Similar
64s, 70s, 80s (fine) strictly combing 29¢ to 30¢
64s, 70s, 80s (fine) French combing 28¢ to 29¢
64s, 70s, 80s (fine) strictly combing 28¢ to 29¢
58s, 60s, (1/2-blood) strictly combing 26¢ to 27¢
58s, 60s, (1/2-blood) strictly combing 26¢ to 27¢
58s, 60s, (1/2-blood) strictly combing 26¢ to 27¢
58s, 60s, (1/2-blood) strictly combing 26¢ to 27¢
48s, 50s, (1/2-blood) strictly combing 26¢ to 27¢
48s, 50s, (1/2-blood) strictly combing 26¢ to 27¢
48s, 50s, (1/2-blood) strictly combing 26¢ to 27¢
38s, 40s, 44s (common and braid) 25¢ to 26¢

GUERNSEY AVERAGE \$15
At the annual Guernsey sale held at Hinsdale, Ill., recently 84 head averaged \$15.

The offering contained many very choice-bred cattle. Top on bulls \$22,000, paid by Radisson Farm of Minnesota. The 15 bulls sold averaged \$391.50. The top female was a mature cow which sold for \$4,200 to Emmadine Farm of Hopeville, N. J., owned by J. C. Penney, Chauncey McCormick of Chicago paid \$3,650 for a mature cow. The 69 females listed averaged \$785. The entries came from 40 prominent herds in the annual meeting of the club held at Chicago selected Robert Scoville, New York merchant, president of the Club for his 12th term.

A NEW BOOK
Henley's Twentieth Century Book of Ten Thousand Recipes, Formulas and Processes is, as its name indicates, a collection of trade and professional. It tells what to use and how to mix the ingredients of formulas for about everything imaginable. The book contains 800 pages and may be obtained direct from the publisher, The Norman W. Henley Publishing Co., 2 West 45th St., New York, N. Y. The price is \$1.

LIVESTOCK

PITTSBURGH

Cattle

Thirty carloads made up the supply of cattle at the Pittsburgh market on Monday of this week. The market opened active and strong to unevenly higher, but after some of the better kinds of steers were sold most trading was done at prices about steady with last week. One load of choice 1,185-lb. steers brought \$12.15 and a load of very good cattle averaging around 1,250 lbs. brought \$12.15. Average quality of receipts was fairly fair and the bulk of steers and yearlings went at \$10 to \$12. Several loads of good butcher steers weighing around 1,100 lbs. sold at \$11.75, while a few very good heavy beefs, mostly heifers, brought \$11.75. Heavy heifers were not numerous and sold at a range of \$7 to \$10, according to quality. Choice fat cows brought \$8.25 to \$8.50; fair to good ones \$6.50 to \$7.50. A few choice heavy butchers brought \$9.50 to \$10.50, medium kind \$8.50 and good heavy bulls \$8.25 to \$8.50.

Prime fat steers, 1,200 lbs. or over 11.75 to \$12.25. Good to choice, do. 11.25 to \$11.75. Fair to good, do. 10.50 to \$11.25. Plain heavy steers, 1,100 to 1,200 lbs. 10.00 to \$11.00. Light Yorkers, 125-150 lbs. 10.00 to \$11.00. Pig, 90-110 lbs. 8.50 to 9.00. Roughs 8.50 to 9.00. Stags 5.00 to 7.00.

Sheep and Lambs

Receipts amounted to about ten carloads. The market was a half dollar higher on clipped lambs, the bulk selling at \$10 to \$10.50. Other classes were generally steady. Spring lambs sold at \$11 to \$12 and a few choice short aged wethers at \$5.

Clipped

Good to best wethers 5.50 to 6.00. Good mixed 5.00 to 5.50. Fair to good, do. 4.00 to 5.00. Common to fair 3.00 to 3.75. Inferior sheep 2.00 to 3.00. Good to best lambs 10.00 to 10.50. Mixed lots 8.50 to 9.00. Culls and common 5.00 to 7.75. Spring lambs 9.00 to 13.00.

Calves

With 1,600 calves on sale the market was steady. Good to choice vealers brought \$11 to \$12; heavy and thin calves \$5 to \$9.

LANCASTER

Cattle

Lancaster, May 26.—Cattle receipts totaled 375 head. The market was slow. Steers and yearlings were weak to 25¢ lower. Early top was \$11.65 on cattle weighing 1,340 lbs. Best yearlings brought \$11.70. Bulk of steers went at \$10 to \$10.75. Bulls were weak, as stock steady, stockers and feeders nominal.

Monday's Representative Sales

No. Wt. Pr. No. Wt. Pr. No. Wt. Pr.
23 1251 12.10 5 1282 12.00 19 1192 12.00
6 1088 11.40 6 1193 11.25 14 1156 11.25
5 1158 11.25 6 1019 11.25 6 908 11.25
7 740 11.25 7 1019 11.25 15 974 10.75
12 964 10.65 3 1263 10.50 8 931 10.50
8 925 10.40 12 997 10.35 8 915 10.15
3 1450 10.00

Cows and Heifers

1 600 11.25 2 755 11.00 9 972 10.10
6 1111 8.75 1 1080 7.25 1 1060 7.00
1 940 6.50 1 940 6.25 1 880 6.00
1 830 5.25 2 915 3.25 1 750 5.25

Good to choice calves 11.25 to 13.00. Medium 9.50 to 11.25. Culls and common 7.50 to 9.50.

Hogs
About 425 hogs were on sale. The market was fairly steady with top hogs selling at \$11.75. Heavy weights, 250-350 lbs., \$11.00 to \$11.50. Medium weights, 200-250 lbs., \$10.50 to \$11.00. Light weights, 150-200 lbs., \$10.00 to \$10.50. Packing sows (rough and smooth) \$8.00 to \$11.00.

CHICAGO

Cattle

Chicago, May 25.—Receipts were 21,000 head. Best kinds steady; others a quarter lower. Common to fair steers \$7.75 to 9.75. Fair to prime yearlings \$9.75 to 11.25. Fair to prime corn-fed \$9.00 to 11.25. Cows \$6.25 to 9.75. Heifers \$7.50 to 11.85. Bulls \$6.25 to 9.75. Calves \$9.00 to 13.00. Stockers \$8.25 to 10.75. Feeders \$7.75 to 10.75. Stocker and feeder cows \$7.50 to 8.50. Stocker and feeder cows \$7.50 to 8.50.

Hogs

Fifty-five thousand head, including 25,000 "directs," made up the supply of hogs. The market was steady to a time lower. Top pigs \$10.35; bulk \$9.50 to \$10.30. Underweights, 140-160 lbs., \$9.75 to \$10.30. Light, 160-180 lbs., \$10.00 to \$10.30. Medium butchers, 180-220 lbs., \$10.15 to \$10.30. Heavy butchers, 220-250 lbs., \$10.00 to \$10.30. Heavy butcher, 260 lbs. up, \$9.00 to \$10.25. Stags, 70 lbs. dock, \$8.75 to 9.65.

Sheep

Ten thousand sheep and lambs were offered. The market was 25¢ higher with top at \$10.50. Spring lambs sold up to \$12.50. Native lambs \$6.75 to \$10.25. Western lambs \$8.00 to \$10.50. Spring lambs \$8.00 to \$10.50. Feeding lambs \$5.00 to 7.50. Wethers \$5.00 to 7.50. Yearlings \$6.50 to 9.00. Ewes \$4.00 to 5.00.

CHICAGO CASH GRAIN

Chicago, Ill., May 26.—The following cash prices ruled here today: No. 2 hard wheat, \$1.07; No. 2 yellow corn, 79¢ to 80¢; No. 2 white corn, 82¢; No. 2 mixed corn, 79¢; No. 2 white oats, 41¢ to 41½¢.

Farm Conditions

Frederick Co., Northern Md.
May 13: Weather has been hot and dry, but little sign of rain. Grass and grain looking good, but need rain. Oats also looking good. Some farmers doing planting. Some are waiting for rain. Ground plowed early has plenty of moisture to bring corn up. Fruit injured some by the cold snap the latter part of April.
Roy J. Wivell.

Tioga Co., Northern Pa.
May 17: We have had very nice weather for the past month. Much warmer than usual at this season, cloudy with showers the past few days. Most oats sowed. Farmers getting ready to plant corn. New seedling poor and much of it being plowed up. Early potatoes and garden being planted. Sheep being sheared, wool very low. Some buyers offering 20¢. Hens laying well, eggs 23¢. Best calves \$5, butter 43¢. Young pigs sold at \$5. Mrs. F. W. Lawton.

Lehigh Co., Eastern Pa.

May 13: Very dry weather for a number of weeks. Mountains north of Lehigh county on fire at different places. Farmers anxiously waiting for rain. Most plowing is done. Potatoes are nearly all planted. Corn planting is going on. In some places trees flowered very nicely, while other places the trees had very little flowers. Rye and wheat looking fairly well but very short. Grass fields far behind on account of drought. Old potatoes about all marketed.
Geo. J. Ross.

Wood Co., Western W. Va.

May 17: We haven't had a good rain for several weeks. Pastures short. Meadows poor. The corn-root worm seems to be causing considerable trouble. Much of the fruit was killed by a freeze that occurred the latter part of April. Some lumbering is being done. The county court has planned to gravel several dirt roads this summer.
Allyn Deem.

Lancaster Co., S. E. Pa.

May 18: After about a week extremely hot and dry it is cool, down to 50 at night. Very little rain fell during April and May so far. Ground that was not taken care of right after plowing is rough and dry. Corn is mostly planted; some up. Garden vegetables late, some not coming up, too dry. Cherry (sweet) blossoms frozen. All fruit had nice bloom. Grass fields and wheat good stand. Potatoes scarce. Tobacco not all sold.
C. R. E.

Franklin Co., Southern Pa.

May 12: Hot and dry recently. Ground is hard and some corn to plant yet. Oats up but not growing fast. Pastures scanty and flies have commenced to pest the stock. A series of forest fires in the county recently caused some damage and in some instances stopped traffic. A large acreage of potatoes is scheduled to be planted this season. Potatoes are in good demand at \$2 a bushel.
John B. Shank.

Al Acres—A safety-first railroad



By L.

A YOUNG SHEEPMAN

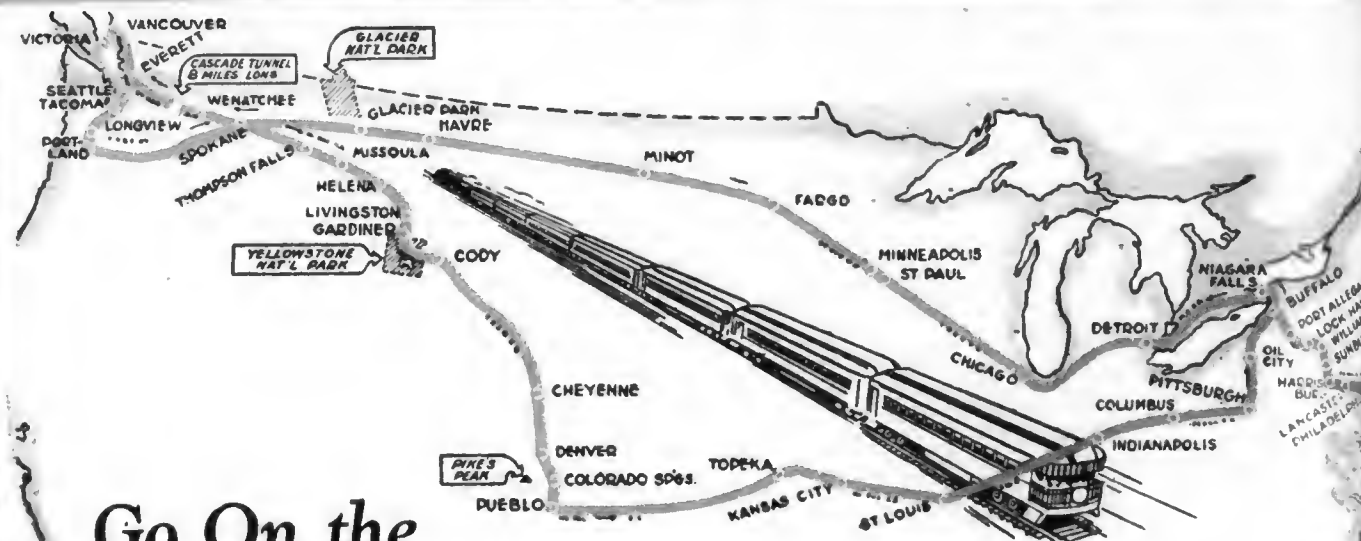
An enclosing picture of W. J. McGraw and our grandson, Mike Lee, Jr., four years old, sitting on the Dorset ram.
Mrs. W. J. McGraw
Fayette county, W. Va.

SEE The Northwest This Year at Low Cost

ITINERARY

| | | | |
|---------------------|----------|------------|---------|
| Lv. Philadelphia | P.R.R. | 8:40 A.M. | July 26 |
| Lv. Harrisburg | P.R.R. | 11:27 A.M. | July 26 |
| Ar. Buffalo | P.R.R. | 7:45 P.M. | July 26 |
| Lv. Pittsburgh | P.R.R. | 10:00 A.M. | July 26 |
| Ar. Buffalo | N.Y.Cen. | 4:35 P.M. | July 26 |
| Ar. Niagara Falls | M.Cen. | 8:00 P.M. | July 26 |
| Lv. Niagara Falls | M.Cen. | 10:00 P.M. | July 26 |
| Lv. Chicago | M.Cen. | 8:30 A.M. | July 27 |
| Lv. Chicago | C.&O. | 11:30 A.M. | July 27 |
| Lv. St. Paul | C.&O. | 10:30 P.M. | July 27 |
| Lv. St. Paul | G.Nor. | 10:45 P.M. | July 27 |
| Lv. Minot | G.Nor. | 1:30 P.M. | July 28 |
| Lv. Minot | G.Nor. | 2:30 P.M. | July 28 |
| Lv. Glacier Park | G.Nor. | 2:30 P.M. | July 28 |
| Lv. Glacier Park | G.Nor. | 2:30 P.M. | July 28 |
| Lv. Spokane | G.Nor. | 10:00 A.M. | July 30 |
| Lv. Spokane | G.Nor. | 2:30 P.M. | July 30 |
| Lv. Wenatchee | G.Nor. | 4:30 P.M. | July 30 |
| Lv. Wenatchee | G.Nor. | 4:30 P.M. | July 30 |
| Lv. Vancouver, B.C. | G.Nor. | 9:00 A.M. | July 31 |
| Lv. Vancouver, B.C. | C.P.S.S. | 10:30 A.M. | July 31 |
| Lv. Victoria, B.C. | C.P.S.S. | 2:30 P.M. | July 31 |
| Lv. Victoria, B.C. | C.P.S.S. | 10:30 P.M. | July 31 |
| Lv. Seattle | C.P.S.S. | 8:30 P.M. | July 31 |
| Lv. Seattle | G.Nor. | 11:50 P.M. | Aug. 1 |
| Lv. Denver | G.Nor. | 4:30 A.M. | Aug. 2 |
| Lv. Denver | G.Nor. | 10:00 A.M. | Aug. 2 |
| Lv. Portland | G.Nor. | 11:30 A.M. | Aug. 2 |
| Lv. Portland | G.Nor. | 11:30 A.M. | Aug. 2 |
| Lv. Spokane | S.P.S. | 10:30 P.M. | Aug. 3 |
| Lv. Spokane | S.P.S. | 10:30 P.M. | Aug. 3 |
| Lv. Spokane | N.Pac. | 12:30 P.M. | Aug. 4 |
| Ar. Philadelphia | P.R.R. | 7:45 P.M. | Aug. 10 |

| | | | |
|----------------------|---------|-----------|---------|
| Lv. Cody | C.B.&Q. | 8:00 A.M. | Aug. 7 |
| Ar. Cody | C.B.&Q. | 8:00 A.M. | Aug. 8 |
| Lv. Denver | M.Pac. | 1:30 P.M. | Aug. 8 |
| Lv. Denver | M.Pac. | 4:30 P.M. | Aug. 8 |
| Lv. Colorado Springs | M.Pac. | 5:10 P.M. | Aug. 8 |
| Ar. Colorado Springs | M.Pac. | 8:20 A.M. | Aug. 9 |
| Lv. Kansas City | M.Pac. | 8:50 A.M. | Aug. 9 |
| Ar. Kansas City | M.Pac. | 1:10 P.M. | Aug. 9 |
| Lv. St. Louis | B.Four | 5:58 P.M. | Aug. 10 |
| Lv. St. Louis | B.Four | 5:58 P.M. | Aug. 10 |
| Ar. Philadelphia | P.R.R. | 5:10 P.M. | Aug. 10 |
| Ar. Philadelphia | P.R.R. | 7:45 P.M. | Aug. 10 |



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PENNSYLVANIA FARMER Tour

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It's a wonderful educational sight-seeing tour. From Philadelphia, Pittsburgh and other convenient stops as you travel to Buffalo where all tour members meet to go on to Chicago and St. Paul. Into Glacier National Park and the Indian Reservations. Then on to Vancouver, B. C., and by steamer to Victoria and Seattle. Thence on to Longview, Portland. On the return you see the world-famous Yellowstone National Park and the beautiful Colorado Rockies; Denver, Colorado Springs, etc. Then across the great wheat growing state of Kansas, on to Kansas City, St. Louis and later home.

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Chief
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White Cal.
Glacier
National Park

Bird scene,
Seattle, with
Mt. Rainier
in background

Mt. Rockwell
and Two
Medicine
Lake,
Glacier
National
Park

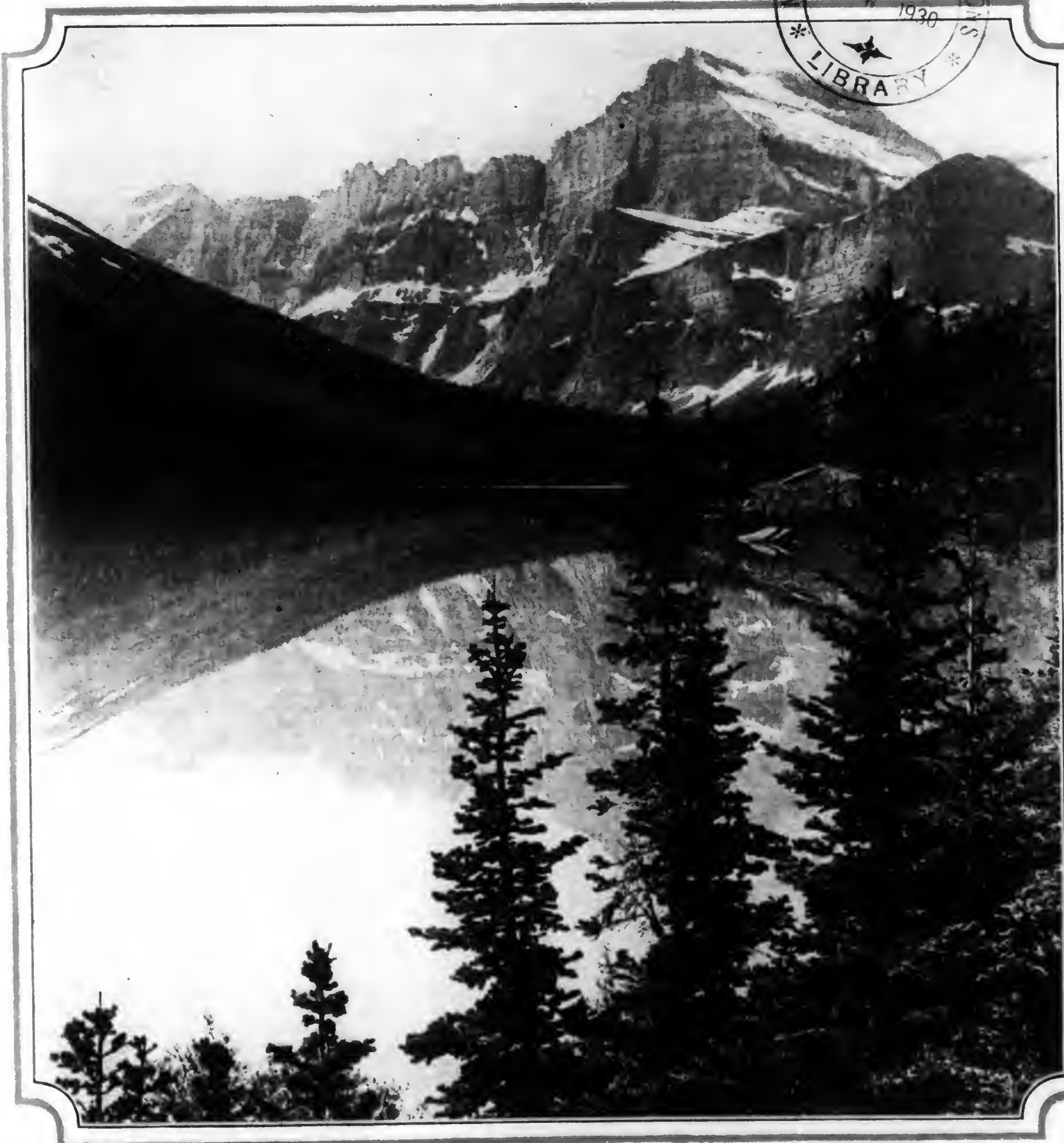
PENNSYLVANIA FARMER

Published
Weekly

Established
1877

Consolidated with PENNSYLVANIA STOCKMAN and FARMER

June 7, 1930



A Scene in Glacier National Park, on the route of the Pennsylvania Farmer Tour. See Page 8.

Philadelphia

Pittsburgh

Harrisburg

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NIMBLE on hills—in tight places—in mud, loose soil or sand—with a "Caterpillar" Tractor. You go close around trees—right into corners—able to till all the land—kill all the weeds.

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CATERPILLAR
TRACTOR



Farm Facts and Fancies

By ALVA AGEE

DR. I. T. LEONARD, bacteriologist of the federal Bureau of Soils, writes: "In your column, Farm Facts and Fancies, I note what you say in regard to the regulation of the sale of legume inoculants. Possibly you are unaware of the work that has been and is being carried on in this connection by the New Jersey and Wisconsin Experiment Stations and the U. S. Department of Agriculture. The Department endeavors to test samples of practically all brands of soil and seed inoculants made in the United States whether produced privately or by institutions. As a result of this annual inspection a list is prepared bearing the names of the firms whose samples of materials have been found satisfactory."

I am glad that our readers may know more of the advisory service now being rendered, and the federal Bureau's list of firms whose samples have been found satisfactory should be consulted by them until better protection is afforded. However, the author of the Geneva bulletin that I quoted was urging the matter of "adequate control" within its own state, and that would mean the barring from market of goods that were not dependable. He recognizes the fact that such a list as the federal government prepares does not give the needed protection.

In every state the department of agriculture or experiment station should ask its state to direct it to test all legume inoculants and to drive out of the market any that were not as represented. The farmers need this protection, and under it the use of inoculants would increase, and to the farmers' profit.

Potato Enemies

The bug that is doing the most harm to the potato today is harbored by our writers on health. A housewife who tries to provide her family with the right sort of a diet said the other day: "Nobody has a good word to say about the potato in the diets that are prescribed. It is either condemned or not mentioned."

An Irishman might not be able to pass a domestic science examination, but he knows that the potato gives strength to do hard work. It furnishes good fuel for muscular activity. I play roque with a retired physician who has much hard sense. He says that the Lord made no mistake in the provision of food products, and that the human body, in normal condition, is equipped with power to make any needed adjustments when the scientist's balanced ration is not used by an ordinary mortal.

There is a lot of propaganda favoring a certain fruit or vegetable that is financed by producers' associations, and I do not think much of such methods of getting an undue share of the consumer's money. It is addition in one place and subtraction in another, and no enlargement of the market. The gain in one direction is a loss in another, and agriculture stands still.

"Relief" for the Eastern Farmer

Some of our eastern farmers are asking where they come in so far as the plans of the Federal Farm Board are concerned. The country stays hopeful that those who join commodity associations, as producers specializing in wheat and cotton can do, will benefit, but the diversified production of eastern farmers would not let the most of them fit into the scheme easily. So far they have been by-standers while the great experiment in price control is being made, and their problems must wait.

I don't see anything particularly out of the way about this, because the Board certainly should make its first attempts where conditions are most favorable to some degree of success. The plans now being formed for ap-

ples and potatoes may affect eastern farming in some degree. Anyhow the eastern farmer is getting about as much out of this governmental effort as the wheat and cotton grower is getting so far.

Tariff and the Farmer

The tariff has ceased to be a political party question and one may discuss it as safely as he would the weather. We are told that if the benefits of a protective tariff policy can not be conferred upon agriculture as they are on manufacturing, the next course would be to withdraw the benefits from manufacturing so that the farmers could buy their supplies more cheaply, and thus all of us would be on the same level.

This suggestion comes to mind as one sees the effect on demand for and prices of some of our products that the present business recession has produced. We are peculiarly dependent on full employment of labor in our industries. When demand for it slackens, food prices tend to slump.

We may not like the protective tariff system at all, but the present business depression certainly would be rated as too slight for comparison with the situation if the system were abandoned. The theorists may differ about the outcome in the long run but I am thinking of the jolt for a considerable term of years that would come to farmers when demand fell off because labor was unemployed. I reckon the suggestion is made chiefly to give manufacturers something to think about when opposing farm relief measures.

Improving Permanent Pastures

The Wisconsin Experiment Station estimates that it is quite possible for a herd of twenty cows during thirty grazing seasons to remove nearly six tons of phosphoric acid from the soil. It says: "The amounts of available phosphorus present usually indicate the producing capacity of the soil." Of course old pastures that are not satisfactorily productive usually need much more than phosphorus, but we do well to place phosphorus at the head of the list. Along with this need is that of lime.

The Wisconsin tests show the profitability of use of a complete fertilizer, and of reseeding with grass and legumes. Readers who hold back on account of the expense of full treatment should try an application of lime and superphosphate, and they should plan to broadcast some clover and sweet clover seed early next spring. Try this on a few acres.

A Letter from Delaware

AS I sit on the porch with a lazy bee buzzing here and there and all of God's great out-of-doors so inviting, I feel that it is too bad that every one cannot live in the country in spring and summer (especially children). The wood in front of me is beautiful, with the different shades of green and the dogwood blooms here and there. This makes one feel that we are not nearly thankful enough for all of these blessings.

I enjoy Mr. Kester's articles very much. I think the little personal touches make us feel better acquainted, and I cannot see how any one could object to hearing about those interesting grandchildren.

I am very fond of children. We have two boys, aged five and nineteen. Our only girl of six was accidentally killed by an auto four years ago near our home, where she was gathering daisies by the roadside. We rented the farm and bought our present home on a spur road, where there is not so much traffic, and our tenants lost a boy of eight a few weeks ago, while returning from a neighboring farm.

Sussex county, Delaware.

Excuses

AN excuse is a manufactured alibi, though we pretend that its purpose is to explain why we acted or failed to act in the matter; thus when we wish to explain we give a reason, but when we wish to conceal we give an excuse, for that reason an excuse has only one purpose, that is to hide the facts about our actions.

It is a notable fact that we do not offer excuses for our virtues, but for our failures. For that reason the facts that we wish to conceal by our excuses as a rule are the failures we make, thus the offering of an excuse is, as a rule, an acknowledgement of our failures.

It seems to me that it will not be out of place to recount some of the excuses offered for the condition that many of the farms are in today, because they are as numerous as the briars and elders that infest the fence row.

From the time when Aaron melted the gold of the Israelites and made the golden calf, and when called to account for his actions by Moses tried to cover up his folly with an excuse, to this day, excuses are as numberless as the scrub animals on the farm.

Signs of Alibis

As you travel over the country and view the unproductive condition that many farms are in, you can rest assured that the owner has on hand a supply of excuses, with spread enough to cover up all the erosions and washes, plus the filth that has not been cut for years.

It is interesting to listen to the excuses offered by the owner for the condition of the farm—the unsightly appearance, caused by the neglect to take pride in the appearance that the farm presents to the public.

The sad fact that confronts every one who is engaged in agriculture and offers an excuse for the condition that his farm is in, is that he is headed toward financial ruin, and all the excuses he can offer will not check his progress, but will accelerate its speed.

If some of us would spend more time in a study of the needs of the farm, and less time in thinking up excuses, the harvest would be more bountiful—the appearance to the many people passing through the farm would be more pleasing, and the enjoyment the home folks would get would make life on the farm more substantial.

Weak Arguments

The excuses offered by many farmers for not having a rotation of crops in which a legume has possession at least one-third of the time, and a heavy sod to plow down every third or fourth year, to reinforce the fertility of the land, are as weak as the producing power of the land on this farm.

The excuses offered for neglecting the proper care of the manure which the land needs to assist it in building a heavy sod are as numerous as the fleas on a mangy dog. The excuses offered for not giving better care to the livestock in the way of shelter and a better grade of roughage during the winter are as cold and lifeless as some of the animals are at the close of winter.

The excuses offered for lack of pride in the general appearance of the farm and the home are as feeble as some of the crops harvested on the farm. The excuses for not having membership in the Farm Bureau, not cooperating in the shipping of livestock or consigning wool in the wool pool, are as groundless as the age-old theories in regard to the moon and the signs of the Zodiac.

The excuses for not taking an interest in the community in helping to make it one of the best in the county are so weak and flimsy that they have no comparison. John D. McReynolds, Harrison county, W. Va.

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DRUM AND BAND BRAKE. BOTH
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JOHN FARRELL & SON
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A black and white photograph of a large, white, A-frame barn with a tall silo on the left. In the foreground, two cows are standing in a field, and a person is visible near the barn entrance.

That is why each year more dairymen feed Larro with pasture. Right now you can make more money too doing the same thing.

One of the leading candidates on the Republican ticket was the most prominent defender of the old high tariff policy in the United States. His defeat, especially since he was a candidate in Pennsylvania, shows that there has been a change of sentiment on this subject in recent years. In time past Pennsylvania and the New England states wrote the high tariff law because of their dominance in the manufacturing field. Since the World War the world seems to have shrunk and nations now trade back and forth across the backyard fence. For this reason the "Nationalist" and the "Isolationist" is not so popular as he used to be.

The convention was to convene at one-thirty in the afternoon, but I was

Friendly Talks

And the time to begin caring when we are young. Grow up the way, then it will not be so hard breaking ourselves in when we are older. Cultivate the habit of seeing what the needs of others and of giving them a good, big, wholehearted gift when it will count for most. The more we intended to give but did not give, only the shadow of a belated wish, never comes to pass.

**NESHAMINY
GARDENS**
By R. P. KESTER

More Readers on Farms in Pennsylvania than Any Other Farm Paper

PENNSYLVANIA FARMER

Published Weekly Established 1877

Consolidated with
PENNSYLVANIA STOCKMAN and FARMER

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Vol. 102

Pittsburgh, Pa., June 7, 1930

No. 23

When Water Lights the Home

By R. U. BLASINGAME

Most of us are familiar with the turbine and the overshoot wheel, but it is only recently that a manufacturer, who specializes in equipment for small streams, has started the building of impulse wheels, which makes them available for the small stream at a moderate price. The impulse wheel consists of an iron frame or wheel mounted on a horizontal shaft with cups or buckets attached to the rim. Water under pressure issuing from a jet strikes the cups and causes the wheel to rotate.

Charges Battery

Nothing has been said about prices, because each installation varies widely according to conditions and requirements for power. In general, a water power installation will cost more than a gas engine driven plant of the same capacity, but the water power plant, if properly installed with new equipment, will last practically a lifetime with almost no cost of upkeep.

The installation

of a water power plant is not difficult. Bulletins dealing comprehensively with stream measurement and the selection of equipment can be obtained from the United States Department of Agriculture, as well as from water wheel manufacturers. Before purchasing any equipment it may be well to investigate the reputation of the manufacturer and visit several of his nearby installations.

of our first state entomologists was Professor Smith, of whom it is said that he had been able to tame some of his pets to such an extent that they would eat out of his hand, or any other part of his body, and who died bravely in the last ditch he was filling in.

A Fatal Error

There was a rumor that he tried to infuse more kindness in the species by crossing an inoffensive honey bee queen with a ferocious Jack mosquito. The result does not seem to have justified expectations—it was said the hybrid product had stings on both ends.

Since it is only the female of the species that needs a blood diet, to reproduce life, it surely is encouraging to see that they—I mean the lady mosquitoes—have discovered a balanced ration with the protein of a vegetable. If they can sustain life and propagate the species on a synthetic substitute containing enough hemoglobin and vitamins, or whatever blood consists of, we may yet hope to see swarms of mosquitoes gentle as doves, fanning the heated brows of tourists from California and Florida, when they visit our seacoast, or at night sing them bed-time lullabys of the state which if it must yield the first place in mass production of asparagus to California, yet is proved to own the best domesticated mosquito in the Union. Felix Zernin.

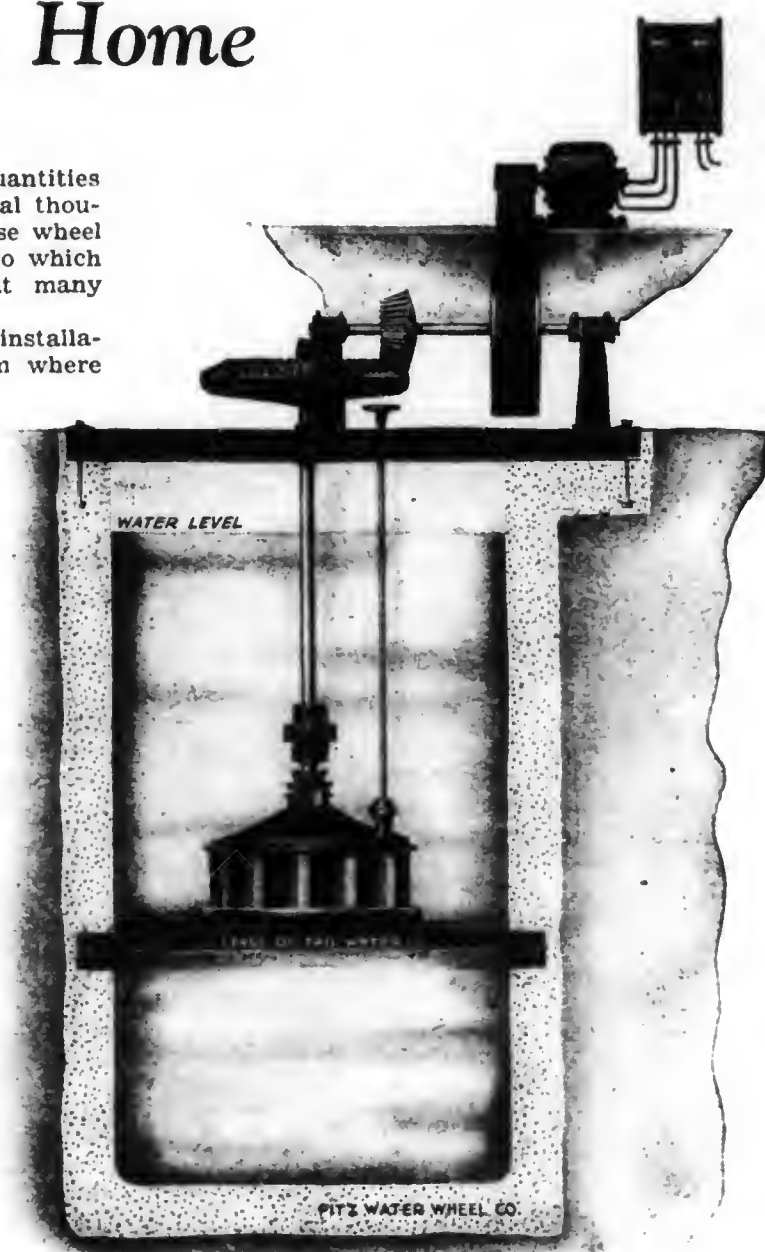
Burlington County, N. J.

Mosquitoes

I READ in a recent issue of the Pennsylvania Farmer an article under "Legumes and Malaria" stating that a Russian physician has observed how the anopheles mosquito seems to prefer a diet of legumes.

It is most appropriate that a discovery so valuable to humanity should have been made in Russia. In a country that abhors the shedding of human blood so much it surely is fit that every drop be preserved.

Of course I, being a Jersey man, take more interest in our state bird—the Mosquito. We have been trying to civilize him for more than fifty years. One



Above is a small direct-connected, turbo-generator outfit suitable for small streams having fairly high heads. This unit takes up a space of 24 by 18 inches and is fed by a five-inch pipe. Under a 35-foot fall it will supply electric current to operate 25 to 30 lamps at a time of 40 watts capacity each. No storage batteries are required and the speed and voltages are automatically controlled.



Left.—This shows a 30-inch, low-head-turbine operating under a head of only six feet and supplying 125 to 150 lights of 40-watt capacity. Several of these plants have been installed on Chickies' Creek, Lancaster Co.



Bottom.—Paul G. Sellers of Chester county, Pa., has installed a wheel six feet in diameter and two and a quarter feet wide to transform the energy of a small stream into light for his poultry plant, barn and farm home. The stream which does this work is about two inches deep and 18 inches wide where it flows over the dam.

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FARM LABOR

APPARENTLY there is no shortage of farm labor. This year has brought us more letters from men who want work than from farmers who want help. We have several applications now for positions on farms.

NATIONAL GRANGE

GRANGERS in this territory will find the annual meeting of the National Grange convenient to attend this year, for it will be held at Rochester, N. Y., Nov. 12-21. The location is within driving distance of a majority of our readers, and there will be a large attendance from nearby states. This is the sixty-fourth session of the organization and will probably be the biggest on record. A class of 12,000 is expected to take the highest degree in the Order.

TIME TO BUY

NO one knows whether farm real estate values have hit the bottom, but it is pretty certain that the decline has been checked. In 1920, the high point, the average value of farm real estate was 170 per cent. compared with before-the-war figures. During the next five years it fell off about 8 per cent. a year, but during the last three years it has declined only one per cent. a year, and now rests at 115, according to government report. Some states showed a small increase last year. These figures support the contention of many far-sighted farmers that now is a better time to buy than to sell farm lands.

BACKYARD COMPETITION

THERE has been a noticeable decrease in consumption of farm products during the present era of unemployment. Vegetable growers and poultrymen want to know if market demand will fall off still more this summer as the unemployed attempt to grow their own food and have some left to sell. Undoubtedly competition may be expected from new back yard gardeners and temporary farmers. But it can hardly be an important factor in the city markets. The high degree of skill being developed by vegetable and egg producers is their best protection against this and every other kind of competition.

A PROFIT FOR EVERYBODY

THE representative of the livestock industry on the Federal Farm Board is evidently an optimist. In a recent address he said, in discussing the lamb business: "We do have overproduction, but I believe we should unite, and I hope to help put over such

a program by having the producers, the feeders, the packers and the cooperative associations unite on a program of somehow stabilizing the price where there will be a profit in it for each of these groups." "Somehow" is a rather general term, if we understand the English language, but probably "the details are yet to be worked out."

A WEEK OF ORATORY

THE American Institute of Cooperation will be held at Columbus June 16-July 23. Most of this time will be devoted to the study of courses given by Ohio State University. But in one week, July 7-12, six members of the Federal Farm Board will appear on the program. Is such concentration of oratory "orderly marketing" of it or congestion? May it not bring about a seasonal surplus or temporary glut? Possibly these expert purveyors of speech may so coordinate or correlate as to adjust the supply to the crowd's capacity and stabilize the whole thing in such a way that there will be profit in it for everybody.

WHERE TO EXPERIMENT

ONE of our critics declares that various acts of other nations are upsetting the law of supply and demand, therefore we should try such economic experiments as price fixing, regulation of production and control of marketing. He feels that the government may do some good by attempting such things or promoting them. Let us assure him that the old law has not been upset, nor is it likely to be as long as that ancient institution human nature survives. Those who have tried to evade it in recent years with coffee, rubber and copper have learned some lessons which the rest of us should have sense enough to learn by observation rather than by experience. If we must experiment why do it with certainties? Why not experiment in something that commercial experience has not proved to be a failure?

MARKET INFLUENCES

MORE things than the casual observer realizes play a part in the making of prices for any commodity. A recent day's cotton market affords a fair example of this fact. The weather, the receipts, the exports, the takings by spinners, the rate of consumption, the market for cotton goods, the buying or selling by cooperatives, the British market are all mentioned; but besides these are possible production in Egypt, the boycott on foreign fabrics in India, a tariff increase in the East Indies and the instability of silver, which has been for centuries the medium of exchange in the Orient. All of these influences converge at the market place and have their effect, nobody knows just what for each of them. And yet there are plenty of wise men who think that some board or commission could fix the price better than the composite wisdom of all concerned does fix it by actual trading, each trader with his own money at stake.

THE ASIATIC OUTLET

CALIFORNIA fruit interests, casting about for a possible outlet for their increasing production, have looked on the huge population of eastern Asia with enough hope to instigate a comprehensive survey of this potential market. The survey was conducted under the auspices of the University of California and the United States Department of Commerce. Aside from collecting an immense amount of information on the food habits and buying abilities of Japan, China, India, the Philippines and other countries the investigation did little to interest the fruit grower who wants quick results in the way of better markets. For the myriads of the Far East were found to be too poor to buy

American fruits, fresh, canned or dried, in sufficient amounts to have much effect on our markets. However, the surveyors believe that in time a patient and intelligent program of sales effort would have beneficial results. Selling abroad everything that we don't want is a pleasant dream but hard to make "come true." The buyers always have something to say, and in this case they are not even conscious of their needs.

A LETTER FROM INDIA

A LETTER from Sam Higginbottom informs us that after three bad years the Allahabad Agricultural Institute has the largest harvest in its history—and this on "land that a few years ago would not pay for cultivation." He concludes that "the present social customs and religious beliefs of the people offset the advantages of soil and climate and are responsible for their poverty." He reports a great Hindu religious assembly at Allahabad, the Kumbh Mela, attended by five million. He is told that the educated Hindus no longer believe in the Mela but they attend to keep peace in the family, for "the ignorant, superstitious, devout woman dominates the literary, trained, unbelieving man." From which it may be inferred that wherever she is and however she is woman is going to do her full share of dominating. A visit by Mr. and Mrs. Gandhi is referred to, and the political situation reported as "more tense." Gandhi's "adherence to the policy of non-violence is not popular with many of the young hot-heads, who seem determined to bring about bloodshed, though what will be gained by it they fail to make clear." Sam says: "To achieve freedom for India—politically, religiously, socially, economically—is a task that should bind all good men together. At the present juncture I believe that the public opinion of the British in India is for the fullest measure of freedom within the Empire."

COOPERATION OR COERCION?

THE Ohio Wool Growers' Association has issued a statement giving its reasons for withdrawing from the National Wool Marketing Corporation, the Federal Farm Board's central marketing agency. Heretofore the Ohio cooperative has marketed the wools of the Michigan and Indiana organizations. The National Corporation has formed new connections for these two cooperatives and compelled them to abandon their connection with the Ohio body. Moreover the National Corporation is now soliciting consignments in the Ohio cooperative's territory for the purpose of further reducing that organization's volume of business and compelling it to "go along." Apparently cooperation has degenerated into coercion in these three states. The Ohio Association charges "a determined effort on the part of the National to break up existing wool pools which do not see fit to submit to its policies in toto." The Ohio organization expresses fear of "a dealer-controlled, dealer-minded organization interested in cooperation only so long as it best serves their financial ends"; also fear that the selling agency employed will dominate the Corporation and the market as well. The Ohio Association calls attention also to the increase in cost of selling through the National Corporation, or "an increase in cost of operation with less efficient service instead of a decrease (in cost) with more efficient service."

Many small eastern cooperatives, which are interested but not concerned in the Ohio organization's problems, want to know what is the best policy for them to follow. We believe they will do best to continue their past selling policy as long as it is the cheapest. There is no evidence thus far to show that they can net more for their wools by paying a central organization more to sell them.

EASTERN Shore Guernsey breeders showed over 110 animals at their annual Field Day which was held at the Wicomico Air Grounds, Salisbury, Md., last Friday. The dairy industry on the Eastern Shore is comparatively new, but judging from the quality of animals shown at the field meet very progress will be outstanding. Although herds are few in number, it was demonstrated last Friday that there are many exceptionally good animals on the Shore. Those who have started in the dairy business have first secured foundation animals from which they could build a profitable herd.

Thirty-four breeders exhibited cattle, all cattle coming from accredited herds and all animals negative to blood test. W. K. Hepburn, manager of Fellowship Farm, Anselma, Pa., made the showing placings. Homestead Senator, a two-year-old bull owned by W. P. Jackson of Salisbury, was awarded grand championship and senior championship. The junior champion bull was Homestead Foremost Colonel, owned by the Edw. Tull Estate of Princess Anne. Cosquay's Sweet Rose, an aged cow owned by F. Adkins of Hebron, was an easy winner in her class and was awarded the grand champion-ship and senior championship. N. W. Auden, the junior champion, an exceptionally fine heifer shown by Carl Adkins of Hebron, was a strong contender against Cosquay's Sweet Rose for the grand championship.

The first prize three-year-old cow, the Lucky Strike, was shown by Pioneer Point Farm at Centerville. This cow as a two-year-old in Class 2 produced 672 pounds of fat and 1,525 pounds of milk. Homestead's Duchess was the best two-year-old heifer. Coston Goslee, a farmer Guernsey breeder of Salisbury, won a silver Guernsey cream pitcher in showing Myrtle of Valley View, the best two-year-old heifer bred and raised by the exhibitor.

Pioneer Point Farm again carried away a first place with Rose Marie of Pioneer Point in a class of heifers 18 months and under two years. The class of heifers one year and under fifteen months, with 31 individuals entered, was the largest class shown. The Yank, owned by W. P. Jackson, was awarded first place.

In the get-of-sire class W. P. Jackson showed the prize winning get of Star Proud Royal. There were ten entries of four animals each in this class. Produce of Golden Nell of Cosquay, owned by B. Frank Adkins, took first place in the produce of dam class. Following the show the crowd departed to the Wicomico Hotel, Salisbury, for a banquet and evening of entertainment. Speakers of the evening were Karl Müsser, Secretary of the American Jersey Cattle Club; Jimmie Dodge, Emmadine Farm, Hopewell Junction, N. Y., and W. S. Gordy, Salisbury.

LEADING all entries in total production in the Passaic County Egg-Laying Contest are the Rhode Island Reds of Scott Poultry Farm, Groton, Mass. These birds have laid 1,851 eggs, or an average of 185 eggs a bird. Another Red flock from the same state holds second place with 1,822 eggs its credit. The White Leghorns from the Fox and Son Poultry Farm, with a score of 1,750 eggs, rank third in total production and first in the White Leghorn division. Second and third places in the White Leghorn division are held by entries of the Darfelt Poultry Farm at Preukness and the Quality Poultry Farm.

THE Rhode Island Reds from Woodview Poultry Farm Mount Holly, continued to rank as the best scoring of the New Jersey flocks during the thirty-four weeks of the Vineland Egg-Laying Contest. This flock ranks third in total production among all entries with a record of 1,793 eggs. First and second places are held by entries from Massachusetts.

Another New Jersey entry of Reds owned by Ed D. Schaeble, Shiloh, stands seventh in total production and second among the New Jersey flocks. This flock has produced 1,749 eggs.

DECLARE next Wednesday, June 11, a holiday from farm work and attend the annual Farm Field Day at the New Jersey Experiment Station at New Brunswick. This opportunity to become acquainted with the work of the Station and

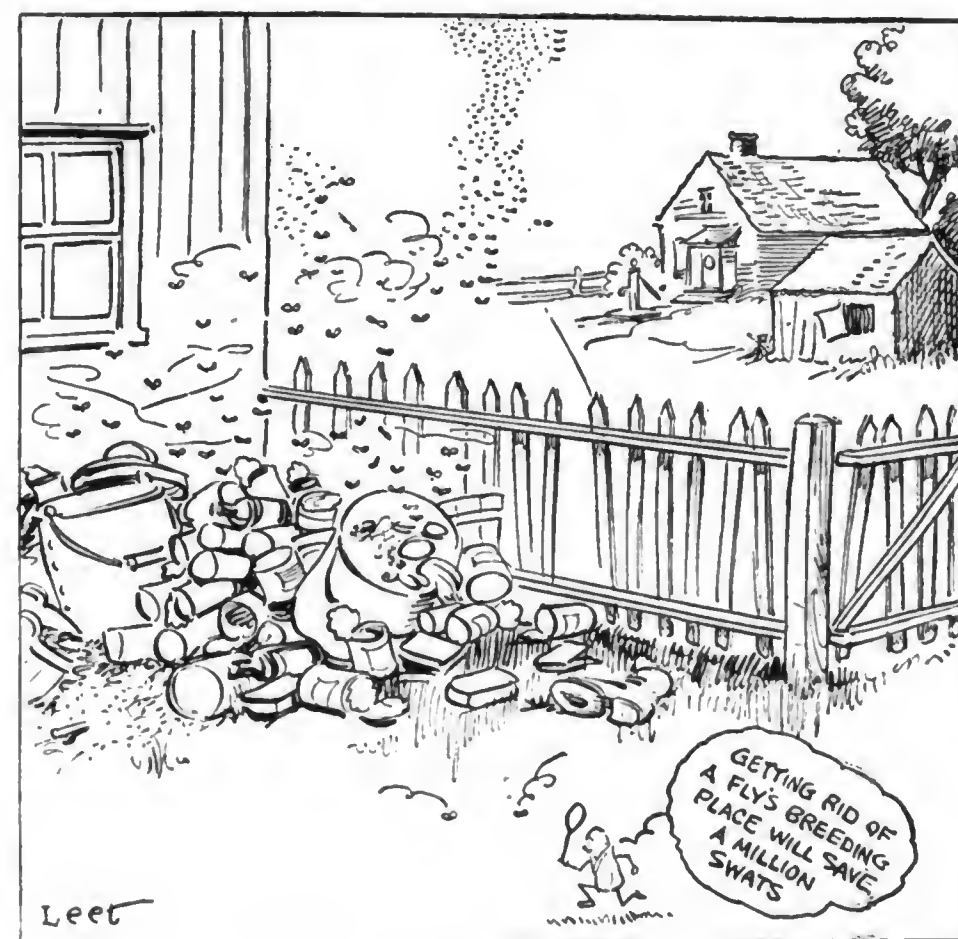
New Jersey Farm Comment

By G. W. HARRIS

the men who are introducing new and better methods in agriculture should be grasped by every farmer in the state. Specialists will be present during the morning for consultation on various problems. At 10:30, daylight saving time, Dr. Carl E. Ladd, director of the New York Experiment Station, will speak to the gathering on the College campus.

Immediately after lunch tours to the College farms will begin. Special tours have been arranged for those interested in soils, farm crops, dairy, poultry, fruit and vegetables.

A PASSAIC county entry owned by the Fox and Son Poultry Farm, Little Falls, with a production of 1,638 eggs during thirty-four weeks, leads all entries in the Hunterdon County Egg-Laying Contest. The Rhode Island Reds owned by Kerr Chickeries, Frenchtown, holds second place



Time to Clean Up

with a 1,573-egg record. White Leghorns from Jerseyland Farms, Point Pleasant, are tied with a Michigan entry for fourth place. These scores are 1,641 eggs.

Five more New Jersey flocks are listed among the first ten in total production. They include two White Leghorn entries of Joseph Joachim, which stand sixth and seventh with scores of 1,537 and 1,511 eggs respectively; and flocks owned by George A. Pearce, Whitehouse, eighth with White Leghorns, 1,503; Broadview Farms, Blawenburg, ninth, with White Leghorns, 1,463 eggs; and Feindorf Farm, tenth, with White Leghorns, 1,452 eggs.

TWO new auction farmers' markets will open in New Jersey on June 2nd. These are located at Beverly, Burlington county, and at Williamstown, Gloucester county.

The auction markets at Cedarville and Rosenhayn, which have been in operation during the past two years, have been outstandingly successful in marketing fruits and vegetables from those sections. Last week they handled the first of South Jersey's strawberry crop.

JAPANESE beetles are scheduled to make their appearance by June 15th is the report from the Japanese Beetle Laboratory at Moorestown. The beetle territory is about five miles wider this year than last season and includes Trenton, Lawrenceville, New Egypt, Chatsworth, Hammonton, Vineland, Bridgeton, Deerfield, Woodstown and Pennsgrove in New Jersey; Wilmington in Delaware, and in Eastern Pennsylvania as far west as Coatesville, Phoenixville, Doylestown and across to Trenton.

The advice to property owners in this territory is to spray all trees and ornamentals before June 25 if they wish to protect the foliage from the

Favages of the beetles. The lead oleate-coated arsenate of lead, two pounds to 25 gallons of water, is again recommended for non-fruiting trees and plants. Home owners having fruiting trees and small fruits should write to the Japanese Beetle Laboratory at Moorestown for a chart of the recommendations for the various fruits.

County agents will gladly give this spray information to commercial orchardists.

A TURKEY field day is to become an annual event in New Jersey and this year's meeting is scheduled for November 1 on the farm of Samuel Lippincott near Marlton, Burlington county. New Jersey's first turkey field day was sponsored by the Monmouth County Extension Service and for the past two years has been held at the turkey farm of Mrs. A. E. Reid at Manalapan. These gatherings to "talk turkey" were so popular that it was decided to make it an annual affair. A permanent committee was organized to arrange for such an event which is to be held in various parts of the state.

THAT fishermen may angle in comfort, or even take a snooze, without fearing an irritating attack by mosquitoes is a promising feature of the research work on mosquito repellents being done by the New Jersey Agricultural Experiment Station. Pyrethrum insect powder seems to be the most promising of more than 80 chemicals tested by Dr. Willem Rudolfs. When pyrethrum was mixed with petrolatum and tested in the open the first mosquitoes did not alight until one and one-quarter hours nor bite until two hours after the material was applied to the person. Dr. Rudolfs says that it is possible to mix pyrethrum with neutral oils and even with face powders. Every fisherman, summer camper and shore resident will sing praises when Dr. Rudolfs perfects a mosquito relief.

A POTATO tour of the Eastern Shore of Virginia, the eighth annual event, is planned for June 19. Many New Jersey growers will probably accompany this tour group as they visit the lower part of the Shore where the potato harvest will be in full swing. Worcester county, Md., will have its tour on June 20, and the Long Island tour will be held June 25, 26 and 27.

THE nation's mushroom industry is facing a crisis, and the automobile is held to be indirectly responsible, for commercial cultivation of mushrooms is dependent on an ample supply of properly composted horse manure in which to grow these delicious fungi.

All this was revealed at the New Jersey Agricultural Experiment Station, which has received pleas from mushroom growers to develop an artificial manure in which their crops could be grown, or to devise a method for making this material last longer. Now the manure is used only one season and then it becomes worthless for mushrooms.

Taking the lead in this situation is the Mushroom Growers' Association of Pennsylvania, whose members, especially those in Chester county, represent one of the country's leading mushroom growing centers. This association has established a three-year fellowship, amounting to \$1,500 a year, at the New Jersey Station, for the investigations which it hopes will lead to the development of an artificial manure.

The investigations have already been started here under the direction of Dr. Selman A. Waksman, microbiologist for the Experiment Station. In his investigations Dr. Waksman must first determine what the mushrooms take from the horse manure, and then develop a synthetic product with these same constituents.

This first step will require the taking of numerous analyses of horse manure in the mushroom beds; at first before the crop begins to grow, and then successive analyses as the crop develops.

"Our next step will be to make an artificial manure," Dr. Waksman explains. "We already know that by combining straw or other farm residues with certain fertilizers, especial inorganic nitrogen and phosphorus, and keeping these materials moist for from three to six months, a compost is produced that is quite similar to horse manure in its chemical, physical and bacterial properties. Whether or not we can make a compost material that will be suitable for mushroom growing remains to be seen."

"Go West Young Man," Go West with the Rest

The airplane soars where the eagle soared and concrete spans the ridges, but the lure of change and the open range both time and trouble bridges. Over the desert and through the dust, across the pass to the sea, where the dolphins play and the salt-fish slay and seaweed is a tree.

THE history of the nation from a fringe of frost-bitten colonists clinging precariously on the Atlantic seaboard to the bathing beauties wading bravely into the Pacific Ocean has been a westward march. The trail of the pathfinder led toward the setting sun. The log cabins of the pioneer advanced over the Alleghenies, across the swamps of the Central West, merged into the sod houses of the prairies and sheltered the weary and the wicked under tents of mining camps.

With face to the West the settler wielded axe and rifle from the Hudson to the Golden Gate, while the covered wagon and the plow pushed corn rows and wheat fields into the teeth of a retreating wilderness. Cities grew like weeds where wild birds nested and an empire greater than the kingdoms of antiquity popped up with the impudence of youth and opportunity.

From Frontier Days

From the time Lewis and Clark crossed the "backbone of the world" to the present things have been hopping in the West. The romance of the Rockies has caught the imagination of the world, while the facts of achievement are about as hard to swallow. The West is interesting, fascinating, inviting; it has become the mecca of vacationists, the joy of tourists. That is why we have chosen it as the object of a farmers' vacation tour to be conducted by our paper this summer, July 26th to August 10th.

As the sod houses of the squatter replaced the teepees of the Sioux and the Texas longhorn followed the vanishing buffalo, so those crude outposts of civilization have given way to fertile farms and waddling Herefords, to nervous cities and vast commercial and agricultural enterprises, but the romance of the frontier and the cattle trail will linger in our thoughts of the West. The "wild and woolly" may be subdued in reality, but we shall not allow facts to interfere with fancies and childhood conceptions of Deadwood Dick and Cattle Kate days. Regardless of time or circumstance we shall retain our admiration of California Joe, the man who voiced the great American spirit of independence and proper appreciation by declaring he would not fight for a general who did not provide pie for his soldiers.

We can ride in motor cars over paved highways or in comfort over steel rails, but our spirit will be with Buffalo Bill and the bull whackers who were unrestrained by roads, fences or written law. It is of course unfair to the progressive West of today to think of it in terms of Custer's rash courage or Wild Bill's deadly aim, but the West neither can nor will be allowed to forget its glamorous past, a fitting foundation for a great future.

The "Vanishing Race"

Those who go on our western trip will see something of the old-time West, tamed down and dressed up for company, and for that reason far more pleasant than the original article when Sitting Bull was a calf. There will be Indians in native garb, a visit to a reservation in Glacier National Park and plenty of chances to inspect the noble redman in his native haunts, without danger of losing a scalp or stopping an arrow.

There will be views of a "dude ranch," where steer roping and fancy riding are staged for the amusement of visitors, and other views of cattle ranches, where beef is produced in a big way and cowboys follow their picturesque occupation.

Paul Bunyan's blue ox "Babe" measured 36 axle handles between the horns and could haul an acre of tim-

ber at one load, while Paul's mighty axe cut a swath through the forest like a scythe through timothy. But even Bunyan and his impossible operations are dwarfed in comparison with the modern lumber enterprises of the Northwest, where trees grow big and the business is big in sympathy. Machinery more powerful than a blue ox and visions sharper than that of the Hercules of the lumber camps are reaping a harvest of centuries from Oregon's mountain sides. A stop at such a lumber camp will be one of the features of the Pennsylvania Farmer vacation tour this summer. Adam has been criticised and even Eve has not



The Cost of the Tour

THE cost of the Pennsylvania Farmer Pacific Northwest Tour is shown on the Reservation Blank below. When you send in your reservation deposit and the final balance shown opposite the various starting points you are through paying. This one price covers every necessary expense. You can board the Tour Special without a dollar and have a perfectly good time. Of course, you probably will want to take along pocket money for newspapers, souvenirs, laundry, and other personal expenses. But that is entirely up to you.

The cost announced below covers assignment to a standard Pullman section, two persons to a section. Friends may reserve opposite or adjoining sections. Each section consists of a lower berth and the upper above it.

After we receive your reservation deposit we shall send acknowledgment, together with suggestions about what baggage and clothing to take along.

When your final payment is received you will be mailed your credentials, your car and berth assignments, and full instructions about meeting the train. You will need no ticket to board the Tour Special.

Please make your reservations as soon as possible. If you are waiting for friends to make up their minds, send your own reservation now. We'll hold a section near yours for your friend—if they don't wait too long. Use the Reservation Blank below, or a separate letter. If everything isn't clear, don't hesitate to ask questions.

Reservation Blank

Tour Manager, Pennsylvania Farmer,
7301 Penn Avenue, Pittsburgh, Penna.

Sir: Enclosed find check (or money order) for \$20 per person for reservations on the Pennsylvania Farmer Pacific Northwest Tour. I shall join the tour at the town marked below. Before July 15th I shall mail check for the balance of the cost of the tour, which is shown opposite the town I have marked.

| | |
|--|----------|
| PHILADELPHIA, Paoli, Frazer, Coatesville | \$209.92 |
| LANCASTER, Elizabethtown | 297.00 |
| HARRISBURG | 294.92 |
| SUNBURY, Milton | 294.92 |
| WILLIAMSPORT, Lock Haven, Renovo | 292.76 |
| DRIFTWOOD, Emporium Junction | 290.54 |
| PORT ALLEGANY | 288.54 |
| PITTSBURGH, Beaver Falls, Youngstown, Erie | 285.79 |

I understand that the final payment shown above, with my reservation deposit, is the total amount due per person and that it covers all necessary expenses for the entire tour from the town checked, including berth, meals, tips, side-trips, etc. I also understand that all payments will be returned to me if, for any reason, I cannot go.

Name.....

Town.....

County..... State.....

Names and addresses of other persons for whom I am making reservations follow:

Name.....

Address.....

escaped censure at the hands of generations doomed to labor in "the sweat of their faces." But neither time nor style of garment has changed the attitude of the human race toward apples, the verdict of centuries being that the King of Fruits is mighty easy to take. So persistent has been this idea that orchards have spread from coast to coast, and those of the northwestern corner of the country are among the greatest of the lot.

Whether our feeling toward Eden or the state of Washington be one of reproach or of envy we generally agree that both places would be interesting to see. Since we cannot show our friends the original tree on which grew the forbidden fruit we offer as the next best thing a trip through the famous Wenatchee apple district of Washington. This is a part of our proposed August vacation jaunt for farmers and was selected in the belief that eastern growers will be glad to see at first hand how their competitors in the Northwest manage to stave off the sheriff.

Greatest of Parks

And then there is the Yellowstone, most famous of American parks. The area probably contains the most remarkable aggregation of natural scenic wonders to be found in the same space anywhere in the world.

Among the things which have made Yellowstone the magnet of tourists for generations are its 4,000 hot springs, 100 geysers, rivers, lakes, waterfalls, forests of pine, spruce, fir and cedar, its areas of petrified forests and its profusion of wild flowers.

Sublime canyons, sides brilliant with color, wild animals at times, 200 kinds of birds, and hotels, lodges and roads which make them available to the visitor are a few of the things which attract folks to Yellowstone by the thousands.

In a world of wonders no one can pick out the greatest, but perhaps most people would say that the Grand Canyon is the climax of the Yellowstone. Thousands of tourists have viewed it, struck dumb with its majesty, unable to attempt a description. Here is what the English author Rudyard Kipling wrote about it:

Made Him Dizzy

"All that I can say is that without warning or preparation I looked into a gulf 2,000 feet deep, far below which fish-hawks circled far below. And the sides of that gulf were of wide welter of color—crimson, emerald, cobalt, ochre, amber, splashed with port wine, snow-white, vermilion, lemon and silver grey wide washes. The sides did not sheer, but were graven by time and water and air into monstrous heads of kings, dead chiefs—men and women of the old time. So far below the no sound of strife could reach us, the Yellowstone River ran, a finger-warm strip of jade green. The sunlight played on those wondrous walls and gave hues to those that nature had already laid there. Evening crept through the pines that shadowed us, but the glory of the day flamed in that canyon as we went out very cautiously to a jutting piece of rock—blood-red and pink it was—that hung the deeper depths of all."

But the West has no monopoly of fascination. This country is crowded with monuments to progress from the ferry boats on the Hudson to the great ships of the Columbia. It is full of the marvels of nature from Delaware Water Gap to Powder River (a mile wide and an inch deep) and Horsehoe Falls. It is bulging with inspiration from the clump of iris at the door of a farm tenant's home to the railroad tunnel through miles of solid rock. And yet we can cover a lot of territory and not see these things, our attention being diverted by petty annoyances that take the pleasure from the trip. In our proposed western tour we have endeavored to correct this fault by including the things of unusual significance and by providing for the wants and comfort of the travelers so they will be free to get the most out of their journey. M.

Milly Woodbridge's Trek to the Pacific

The Pioneers of the Peace River Valley

By C. A. Stephens

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SYNOPSIS

Two New England families, who have gone to the Peace River country in Canada to make homes, find themselves in unfortunate circumstances when the railroad, on which they had based their hopes, is not built near where they have settled. One of the families, the Mastermans, moves away, but the other, the Woodbridges, remains in the vain hope that something will happen to create business for the sawmill they have built. The son and daughter advise following the Mastermans' example and go back to civilization while they still have enough money to make the journey, but the father refuses to leave his mill. At last, when it became evident that they could not live through another winter on the Peace river, and after their money had been spent, they started to walk across the thousand miles of wilderness, and mountains stretched between them and the Pacific Coast. With a horse, a cow and later an Indian woman who joins them they cross rivers and forests in slow but determined fashion, living largely on game and fish. The extreme exertion together with wet weather seem to make the father's cough worse until one day he has a hemorrhage of the lungs, losing considerable blood before it stops. Later he seems much better and they go on with renewed courage. One evening the Indian woman, Pinky-Blue, while fishing encounters a grizzly bear and cub. Another night while they are encamped a moose suddenly appears apparently with the intention of attacking the old horse.

some time before being able to go on; and when at length he essayed to do so, they saw that he tottered from weakness.

Both Milly and Winthrop were much concerned; and coming a little later to another small river that fell over ledges into a narrow bay opening out to the lake, they camped for the night. The place was much like the one where they had spent the previous night, and had a fine grassy plat between the encircling crags and the lakeshore where the Jersey could graze at will.

While they were preparing their evening meal, an Indian joined them, carrying a pack of steel traps, an axe and a gun. His face was hideously disfigured by three long white scars and by a nose sadly deflected from its normal position. These drawbacks to success as a wooer did not, however, prevent him from strenuous efforts to induce Pinky to go off with him and share his lot. After they had fed him, he paid his addresses to her for an hour or more, much to Winthrop's amusement and Milly's disgust. But this time Pinky was not to be won. She looked this new admirer over and contemptuously shook her head; and when at last he attempted to seize her hand to pull her along



The Cheerful Plowman

THAT "SECOND MILE"

HE is not obligated to patch this road, I know, the statute has not stated he must do so-and-so. No man could call a sheriff and say, "My dear, my dear, I swear by king and tariff, by magpie, saint, and seer, you must get out your scraper, your huckskins, and your plow, and cut a little caper right here, at once, and now." You must fill in this hollow that spoils this stretch of road, this spot where autos wallow, where men unload the load. Two days of honest labor will fix this nice as prunes; your present cursing neighbor will then start singing tunes!"

No sir, no legal action, no "thou-shalt," said to say, can bring the kind of traction that's needed here today.

But why, I'm speaking plainly, should any man for years allow this mud-innately to clog our running-gears, to torment friends and strangers, to worry folks to death, to hamper priests and rangers, to make us gasp for breath?

Why must good deeds be ordered by laws and sheriffs' lists, why must they be embroidered with printed legal twists? Why won't the average fellow say, "Here's a chance, by jing, to make this old world mellow for cabbage and for king?"

Why won't the average neighbor say, "Here's a chance, I wit, to ease that fellow's labor, to help that rent a bit"? Why won't the average mortal try changing groans to smile, why does he smirk and chortle about that "second mile"?

J. E. T.

after him, Pinky displayed unusual energy. She gave him such a slap that he stalked away, muttering a number of very lefthanded compliments to her. Pinky flung them back, however, with interest and added a few pointed remarks as to his personal appearance; the most of which being in the aboriginal language is happily beyond translation.

This singular visit had been so diverting, not to say exciting, that scant attention was paid for the time being to Freeman Woodbridge's condition. Soon after the tent was pitched and the bed of grass and blankets prepared, he had lain down; and both Milly and Winthrop supposed he was resting as usual from the fatigues of the day. Somewhat later, as they were picking up the day, cleaning the camp kit for the night, Milly heard him speak in what seemed thickened tones, and on going to him, found that he had been attacked by another hemorrhage from the lungs. She at once called Winthrop, and they did what little they could—which under the circumstances was little, indeed. This hemorrhage proved much worse than previous ones, continuing for an hour or more and resulting in much loss of blood. The poor man was quite pallid and cold when finally the alarming flow ceased. He was wellnigh speechless, and merely whispered in reply to the anxious inquiries of his distressed children. They covered him warmly and a little later induced him to take a kind of beef tea made from steaks of the moose meat, which they had brought with them from the camp where Old Peregrinations had perished.

Next forenoon he seemed even weaker and wholly disinclined to talk. An even worse symptom was his utter disinclination for food. Hitherto his appetite had been noticeably good. He had eaten so well, indeed, that Milly had all along felt quite confident that he would recover. The sharpest anxiety now oppressed them—painfully increased by a word that the squaw let fall. After helping Milly tidy up the tent that morning, she stood regarding the recumbent figure in silence for some time, then coming away, shook her head sagely and said, "He no get well. He die pelly soon."

As their father was manifestly unable to travel, no effort was made to go on that day or the next. At first, they hoped and believed that he would rally in the course of a few days and that his courage would return; but they told me that on the third day he called Milly and Winthrop into the tent and, quite as a matter of course, began giving them advice for the rest of the journey and for the future generally. It was with a pang that they perceived he had given up all hope of recovering and that he did not expect to leave the place where they were now encamped. This gloomy conviction no doubt reacted on his physical strength, for day after day dragged by and he did not improve. Rather he grew weaker.

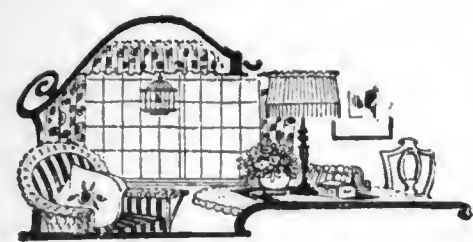
MEANTIME all sorts of worries beset Milly and Winthrop, not only for their father but for their own fate. Not more than half the long distance to Prince Rupert had been traversed; they knew not what was before them and now cold weather was at hand. Sharp white frosts rendered the mornings very chilly. It would soon be too cold to sleep in the tent. Yet to move on was impossible. Freeman Woodbridge had become too weak to rise to his feet without assistance. Perhaps he might have ridden the old horse, if that staunch friend had remained to them; but to walk for hours daily through rough country was plainly impossible for him.

They could do nothing but remain camping there by the waterfall and care for him. Winthrop repined and cast many reflections on the folly of starting upon such a journey. Those were bitter days for Milly. At times she nearly lost heart. The squaw, too, appeared uneasy; she would stand regarding them strangely for whole minutes at a time, as if fearful. Some aboriginal instinct warned her that they ought to go on, or prepare for winter.

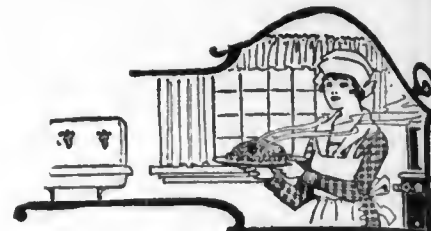
Food such as it was abounded. Flocks of ptarmigan swarmed on the grassy flats round the lake, and were so tame they would scarcely fly from under foot. Pinky knocked over dozens of them with a long pole. Great flocks of ducks and geese, too, came to the lake daily on their southward migrations; and there were trout in the pool below the waterfall.

Several days of rain succeeded, which at length turned to sleet and ended with high, cold winds and snowflakes.

(To be continued.)



The Farm Home



Culinary Lore for Campers

CAMPING days are with us once more. The great army of campers is on the march. Hikers, automobilists, trolley car riders, and even those to whom old Dobbin is still a method of transportation, are once again taking overnights, week-ends, or full vacations, as campers.

Pup-tents, wall-tents and teepees; aluminum kits, mess kits and make-shift kits; pots, pans, pails and toasting forks; fishing rods, guns, revolvers, and even bows and arrows, for archery are again to the fore; blankets, sleeping bags, quilts and robes—all those things which have to do with camping have been aired, cleaned and packed so that the summer army may be properly equipped.

Campers are getting wiser each year. The day of the hot dog and ham and eggs has not entirely passed, but experienced campers are now able to turn out much more elaborate dishes over their outdoor fires. Hundreds of thousands of adult campers are grown-up replicas of their boy scout days, when they were forced to prepare elaborate dishes in order to acquire some coveted badge for cooking—and naturally, this group is well able to prepare praiseworthy meals.

There are a few very important things for each camper to learn and to remember once he or she has learned.

Seasoned with Cinders

First, do not attempt to prepare the ordinary meal on or over a blazing fire. It blackens your pots and pans, and, as a rule, does not cook the meal properly. Smoke, cinders and bits of leaves drop on the chops or steak, and one is indeed fortunate if things turn out satisfactorily.

The first Americans insisted that the white man made a big fire that was no good, while the Indian made a little fire that was "much good," and we are forced to admit that the red man was correct. A blazing fire is all right when a sixteen-pound ham is to be boiled for several hours, but glowing embers are far better for lamb chops, fried beef or steak.

The second thing to remember is that the camp mess must be balanced as well as the home-cooked meal, if the trip is to be one hundred per cent perfect. This means that greens, fruits and other alkaline foods must have a place on the menu.

Those who know water cress, dew berries, wild strawberries and such things, have a decided handicap over the camper who is not so well acquainted with Mother Nature. A few wild strawberries, with cream from a nearby farm house, and a teaspoon or two of sugar from the sugar canister, is a dessert that will please any one. The strawberries are alkaline, the cream is filled with calories, and the sugar is a quick energy food.

Third, and by no means the least important, is the suggestion that sugar be used liberally. The fact that it is a quick source of energy makes it fit wonderfully into the camping trip. It may be used at night to make camp-fire candy. It may be used at breakfast for fruit and cereal. It may be used during the heat of the day to prepare a lemonade for the kiddies. All these things the average camper knows.

But sugar should be used with camp-cooked green vegetables as well. A little added to the water in which these vegetables are cooked will bring out the full flavor of the vegetables and add to the food value of that particular dish. Do not add enough sugar to sweeten the vegetables, but merely enough to give them that zestful flavor which is the final, perfect flowering of the outdoor cook's art.

Remember these three hints when next you start on a camping trip. Betty Barclay.

"The Flower of the Flock"

"My sister, Clara, two years younger than I, was a beautiful child," said a woman well known for her wide experience and broad sympathy. "Clara was round and rosy, with brown curls, lovely blue eyes and a pink and white complexion. I was exactly the opposite, thin, tall, dark and scrawny, with stringy hair."

"If I went out without my sister, I was happy, but there was never any chance for me when with Clara. People always looked at her and exclaimed, 'Oh, what a lovely child!' and never seemed to know that I was present. I would go home just

heart-broken, feeling that I never wanted to go anywhere again. This made my childhood most unhappy, for I couldn't help resenting the fact that Clara received all the attention."

"Mother was very wise. She never made any comparisons, and if reference was made to my plainness, she always said that actions went farther than looks. As we grew older, I surpassed Clara in school and so drew a small share of attention which helped to bring me to a more peaceful state of mind."

This woman's most vivid recollections of her childhood seemed to be of the unhappiness that she had experienced through jealousy. Another friend of mine who had suffered similarly because of a beautiful sister said her family didn't seem to understand how deeply the contrasts and comparisons made hurt her, and the feeling she had toward her sister was really deplorable; she grew almost to hate her.

It is the parents who are usually responsible when there is a family jealousy, when a child, because of the beauty or accomplishments of another, becomes difficult, suspicious, inclined to

The Country Church

The country church,
In some great day
The country church
Will find its voice
And it will say:

"I stand in the fields
Where the wide earth yields
Her bounties of fruit and of grain;
Where the furrows turn
Till the plowshares burn
As they come round and round again;
Where the workers pray
With their tools all day
In sunshine and shadow and rain.

"And I bid them tell
Of crops they sell
And speak of the work they have done;
I speed every man
In his hope and plan
And follow his day with the sun;
And grasses and trees,
The birds and the bees,
I know and I feel every one.

"And out of it all
As the seasons fall
I build my temple away;
I point to the skies
But my footstone lies
In commonplace work of the day;
For I preach the worth
Of the needy earth—
To love and to work is to pray."

—Liberty H. Bailey.

"carry a chip on his shoulder" or to have an inferiority complex. It is very easy to arouse this jealousy by giving undue attention to one member of a family who happens to be more gifted or finer looking than the others.

The following story by a pre-school study group leader suggests a wiser way of treating "the flower of the flock":

"We had guests from Chicago the other night. A young niece with her husband and three little girls—Peggy, five; Joan, three and a half; a baby, seven months.

"Having heard a great deal from the relatives of the smart and lively Joan, we had eyes only for her when they arrived. She lived up to her reputation, and we thought her a wonderful child. But we soon began to be interested in what the father and mother were saying about Peggy—how when only two years old, she had remembered putting her mother's diamond ring under a table cover several weeks before, how she often brought back unusual stories from the Sunday school.

"After the departure of our guests, I found myself thinking of the retiring Peggy really more than of the vivacious Joan. In fact, I recalled that very little had been said of Joan. Could it be that these parents had learned to apportion the attention given to the two children? Certain it was that much of our attention had been wisely redirected by them thus preventing the younger child from becoming too forward or vain and the older one from feeling neglected and jealous."

Janette Stevenson Murray.

Carbon Bisulphide Kills Ants

If you would successfully and permanently get rid of ants, the first thing to do is to find the colony and destroy the queen, according to Dr. Glenn W. Herrick of the Cornell University agricultural experiment station. When the queen is gone no more eggs will be laid, and the production of workers will stop.

To destroy the nests and kill the queen, carbon bisulphide is one of the best substances to use. If the colony can be found in a place where carbon bisulphide can be used, pour an ounce or two of the liquid into each of the several holes made in the nest with a sharpened stick, and then quickly stop up the hole with a clod of dirt. A heavy wet blanket thrown over the place helps to retain the gas and make it more effective. The liquid evaporates quickly and its gas permeates the whole nest, destroying the colony. The gas is inflammable and explosive and no form of fire or light should be brought near the place which is being fumigated.

Tartar Emetic

Where the colony cannot be found or reached with carbon bisulphide, Professor Herrick recommends the use of tartar emetic. Mix tartar emetic with extracted honey at the rate of one part to twenty parts of honey. Pour some of this mixture into individual butter plates set in the places where the ants are troublesome.

A third way to get rid of ants is to use sodium fluoride. Dust this powder about the places where the ants frequent. The use of a weakly poisoned sirup is a fourth way recommended by Professor Herrick. The workers carry this to the nest, feed it to the young, and thus it gradually kills off all the individuals and in the end destroys the colony. Such a sirup may be made by dissolving one pound of sugar in one quart of water and adding 125 grains of arsenate of soda. The mixture should be boiled and strained.

Neighbors

How convenient it is to have neighbors—especially if they are not so close they can land us turn over in bed. We have lived near a variety of folks in town, but I like better the arm's-length neighbors of the farming section.

Here in the maple sugar country everybody is interested the first warm days of February or March, watching for signs of tapping across the valley and up the hollow. The gleam of buckets, some sapbush, the rumble of a gathering tank over the stones, the smoke and steam at a sap-house—all these are signals for the rest of the sugar makers to get busy. The close of the season, as well as the opening, gives evidence of our interest in what the neighbors do.

Just so with haying. The whirr of a mowing machine at dusk is said to be a sure sign of rain. When one farmer meets another on the road, the store, or at some community meeting, they compare notes on the progress of the season's work—unless they discuss their respective automobiles or school troubles.

The annual school meeting brings rural neighbors together for a common purpose. We may learn self-expression there and, perhaps, some self-control when we have to give up to the majority.

Probably farm women have greater interest in their husbands' business than city or town women because they are nearer to the process and results. Yet the women find much pleasure in purely domestic affairs with one another, helping occasionally with tying quilts and the like.

The truly rural organizations have their share also, in making us more neighborly. The Farm Bureau and Home Bureau with their various projects, the Grange with its social emphasis, all stand in the friendly atmosphere of the community.

Just because the old-time "bee" is out except for barn-raising, is no proof that farmers and their families are independent. The close friendliness of all the folks along the road comes out when one family needs to replace a building destroyed by fire, or when somebody is sick or dies. No matter how busy with their own affairs, genuine neighbors show themselves in time of need.

Vida M. Bates.



Tub Frocks for June Days

No. 6866.—Girls' dress. Cut in four sizes: 8, 10, 12 and 14 years. A 12-year size requires 2 1/2 yards of 35-inch material. A 14-year size will require 2 3/4 yards. Price 15c or two for 25c.

No. 6867.—Girls' dress. Cut in four sizes: 8, 10, 12 and 14 years. A 12-year size requires 2 1/2 yards of 35-inch material. To finish with bias binding requires 6 1/2 yards of 35-inch material. Price 15c or two for 25c.

No. 6868.—Misses' dress. Cut in three sizes: 16, 18 and 20 years. An 18-year size requires 2 1/2 yards of 35-inch material. To finish with bias binding requires 6 1/2 yards of 35-inch material. Price 15c or two for 25c.

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No. 6870.—Girls' dress. Cut in five sizes: 12, 14, 16 and 18 years. A two-year size requires 1 1/2 yards of 22-inch material. The shoulder bow requires 1 1/2 yards of ribbon. Price 15c or two for 25c.

No. 6871.—Child's rompers. Cut in three sizes: 6 months, 1 and 2 years. A 2-year size requires 1 1/2 yards of material 32 inches wide or wider, together with 2 1/2 yards of bias binding put on as illustrated. Price 15c or two for 25c.

No. 6872.—Ladies' morning frock. Cut in nine sizes: 38, 40, 42, 44, 46, 48, 50, 52 and 54 inches bust measure. A 48-inch size requires 3 1/2 yards of 36-inch material together with 1/2 yard of contrasting material. The width of the frock at the lower edge is 1 1/2 yards. Price 15c or two for 25c.

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No. 6874.—Ladies' pajamas. Cut in four sizes: Small, 34-36; medium, 38-40; large, 42-44; extra large, 46-48 inches, bust measure. A medium size requires 4 1/3 yards of material 32 inches wide. To finish with bias binding requires 8 1/2 yards 1 1/2 inches wide. Price 15c or two for 25c.

No. 6875.—Ladies' Apron. Cut in four sizes: Small, 34-36; medium, 38-40; large, 42-44; extra large, 46-48 inches, bust measure. A medium size requires 4 1/3 yards of material 32 inches wide. To finish with bias binding requires 8 1/2 yards 1 1/2 inches wide. Price 15c or two for 25c.

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Mr. J. D. McFaun, Mgr. of Hillside Farm, Vintage, Pa.

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Town..... State.....

Punishment

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"Oh, but he punished you so you'd remember not to take what didn't belong to you," explained Joan.

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"Mother got mad and spanked me because I didn't know she wanted me to watch the baby and he pulled a knife off of the cabinet and cut his finger," thoughtfully said Louise.

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BUICK MOTOR COMPANY, FLINT, MICHIGAN
SALES, SERVICE, REPAIRS, PARTS, ACCESSORIES, RENTALS, LEASING, FINANCING, INSURANCE, TRADING, EXPORTS, IMPORTS, AND ALL OTHERS.

Potatoes Sprayed with Pyrox Yield 50 Bu. More per Acre

"MY 22 acres of potatoes sprayed with Pyrox averaged 50 bu. more per acre than where other sprays were used," writes Mr. J. D. McFaun, Manager of the Hillside Farm, Vintage, Pa., under date of Nov. 5, 1929. He says: "The quality of the potatoes is so good that I am getting \$2.00 per bu.—which means a 20c premium—at the Lancaster, Pa., market."

At \$2.00 per bu., Mr. McFaun's increased yield obtained by protecting his potatoes with Pyrox, amounted to \$100 an acre. Other growers report similar extra profits from crops sprayed with Pyrox.

Pyrox is a combined insecticide and fungicide, the growth of thirty years' experience. It is scientifically prepared to kill insect pests, control blights, and other diseases and to stimulate plant growth. It is quick and easy to use. It does not clog the



Mr. J. D. McFaun, Mgr. of Hillside Farm, Vintage, Pa.

nozzles and sprays in a fine mist. It has the best of sticking and covering properties.

Spraying with Pyrox is a profitable operation. Not only are the increased yields obtained which normally result from spraying, but an additional yield which will pay for any difference in the cost of Pyrox several times over. Pyrox is now priced lowest in 31 years. See your dealer today and get a copy of the new illustrated Pyrox Spray Guide.

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Pyrox
REG. U. S. PAT. OFF.



Reading Bone Fertilizer

Quality Service Satisfaction
HIGH GRADE FERTILIZERS
READING MEAT MEAL
DOW'S AGRICULTURAL SPRAYS



Reading Bone Fertilizer Co., Reading, Pa.

ENGINES BOILERS SAWMILLS



Ask for Big Catalog
We Will Show Special Price
FARQUHAR—YORK, PA.

The UTILITOR Tractor
HEAVY ENOUGH TO DO YOUR PLOWING
—easy to operate, women run it successfully and profitably. Prepares seed bed, plants and CULTIVATES one to five rows. Lifts bulbs, root crops. Cuts, rakes, hauls hay, mows lawns. Power work is a joy. Full Equipment Furnished. UTILITOR is a money maker. Write for circular. Dept. P. UTILITOR CO., DAYTON, OHIO
154 W. 24 St., Dayton, Ohio

When writing advertisers please mention Pennsylvania Farmer

Make More on 4 Loads than on 5 Loads Potatoes

YOU have to pay for grading potatoes and onions, whether you grade them or let someone else do the work. And you can do your grading for less than you pay to have it done.

In many sections one truckload of ungraded spuds in five is culls and dirt. By removing this trash on the farm you save sacks, save carting, save paying freight on worthless stuff.

Boggs machines grade up to 550 bu. per hour into No. 1 and No. 2 sizes, with less than 3% variation from Government sizes, and eliminate culls and dirt. Won't bruise or injure even green stock. And with the Roller Picking Table, potatoes are automatically turned over so that it is impossible to miss picking out rots and defects.

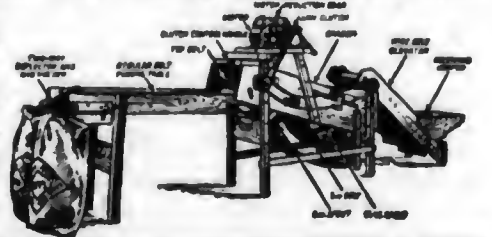
An A-1 pack always brings higher prices. With a Boggs you save help, too. It does the manual labor of three to five men.

Made in several models, to be operated by hand or power, at \$19.00 and up. Quick delivery from our factories at Atlanta, N.Y., and Detroit Lakes, Minn.

Our catalog tells how to make more money. Mail the coupon for a free copy.

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The Standard
**POTATO and ONION
GRADER**

Boggs Mfg. Corp.
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without obligation, please send a free copy of your catalog.
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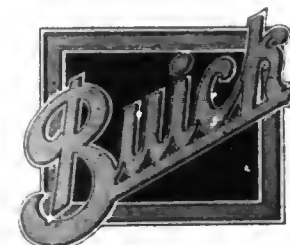
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BUICK MOTOR COMPANY, FLINT, MICHIGAN
Divisions: General Motors Corporation
Canadian Factories: Buick, Oldsmobile, Pontiac, Cadillac
Dealers: Buick and Marquette Motor Cars



Fighters can't train with PILLOWS!

A fighter's muscles must have vigorous, hardy exercise to keep them strong and firm—in condition. Imagine a fighter trying to train on soft, flabby pillows!

Teeth can't train on “MUSH”

IF TEETH, and gums, are to be firm, sound and healthy, they've got to train on sterner stuff than the soft, mushy foods which form so large a part of modern diets.

For teeth and gums which are not sufficiently exercised will deteriorate just as surely as muscles which are little used. They require constant care. They lose their soundness, their firmness. So declare America's leading Doctors of Dental Surgery. And that is not all.

Your own doctor and dentist will tell you that the origin of many serious illnesses has been traced to unhealthy conditions of the teeth and gums.

Teeth and gums need more than daily cleansing, say these knowing men. They must have exercise. They must learn to *chew*. And what

pleasanter way to give them their needed exercise than in the way Nature intended—by eating delicious foods which actually *invite* thorough chewing?

Such a food is Grape-Nuts. It is highly thought of by dental and medical authorities, not only because it gives teeth and gums the brisk exercise they urgently need—but also because it helps to *build* sound teeth.

Grape-Nuts is made from wheat and malted barley. Its golden-brown, nut-like kernels, are crisp and crunchy. You want to chew them thoroughly. And as you do, teeth and gums get the stimulating exercise Nature planned they should have. And every time

you eat Grape-Nuts with milk or cream your body receives a rich supply of

calcium and phosphorus, the two elements so important to the building of sound, beautiful teeth.

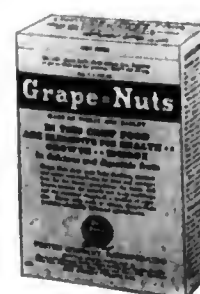
Indeed, in this single delicious dish is practically every food element needed for the health and energy of the entire body. A single serving of Grape-Nuts with milk or cream, supplies more varied nourishment than many a hearty meal!

Your grocer has Grape-Nuts. Buy it today, for breakfast tomorrow. Or if you wish, you can mail the coupon below for a free trial package.

FREE • CLIP THIS COUPON NOW

POSTUM COMPANY, INC., Battle Creek, Mich.
Please send me, free, a trial package of Grape-Nuts, and “Cavities, Teeth and How to Prevent Them,” and “Happy Better Breakfasts.”

Name _____
Street _____
City _____ State _____
Full in completely—print name and address.
In Canada address General Foods, Limited, Sterling Tower, Toronto, Ont.



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A Product of General Foods Corporation



for Economical Transportation
CHEVROLET
THE PHAETON
\$495
f. o. b. factory, Flint, Michigan

Compare the value . . . Compare the price!

It's wise to
choose a
SIX

The New
CHEVROLET SIX
—at greatly
reduced prices!

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| The Roadster | \$495 |
| The Phaeton | \$495 |
| The Sport Roadster | \$555 |
| The Coach | \$565 |
| The Coupe | \$565 |
| The Sport Coupe | \$655 |
| The Club Sedan | \$625 |
| The Sedan | \$675 |
| The Special Sedan | \$725 |
| (6 wire wheels standard) | |
| The Sedan Delivery | \$595 |
| Light Delivery Chassis | \$365 |
| Light Ton Chassis | \$520 |
| Light Ton Chassis with Cab | \$625 |
| Roadster Delivery | \$440 |
| (Pick-up box extra) | |

Prices f. o. b. factory
Flint, Michigan

It is easy to understand why the new Chevrolet Six is winning such widespread popularity. All you need to do is compare it with any other automobile of comparable cost—*value for value and price for price!*

You will discover that Chevrolet is the only low-priced car that gives you the outstanding advantages of a six-cylinder motor. And if you have ever driven a six-cylinder car, you know what a difference six cylinders make—in smoothness, power, flexibility, long life and greater driver comfort!

You will discover that Chevrolet is the only low-priced car with bodies by Fisher—a factor of the utmost importance in determining value. Chevrolet-Fisher bodies are built of selected hardwood and steel—assuring thousands upon thousands of miles of quiet, carefree service. They are carefully padded to prevent drumming and rumble. And they offer every modern safety and convenience feature.

You will discover that Chevrolet is the only low-priced car combining all of these modern chassis features—four long semi-elliptic springs; four Lovejoy hydraulic shock absorbers; completely-enclosed internal-expanding 4-wheel brakes; banjo-type rear axle; and a heavy channel steel frame, with four rugged cross members.

And when you investigate economy, you will make another important discovery—for the Chevrolet Six is just as economical as any car you can buy. It costs no more for oil. It costs no more for gas. It costs no more for tires. It costs no more for service. *And it is sold at prices anyone can afford.*

Before you consider any other low-priced car, compare it with the new Chevrolet Six. *Compare values! Compare prices!* The more thorough your comparison, the more certain you are to conclude that “It's wise to choose a Six!”

CHEVROLET MOTOR COMPANY, DETROIT, MICHIGAN
Division of General Motors Corporation



The Most Powerful Tractor of its Size on Four Wheels

AGAIN Oliver offers a great advance in Power—The Oliver Hart-Parr Model A—a 4-cylinder, 4-plow tractor.

It is lower, shorter, narrower, better—a more compact farm power unit that will handle more easily, work more freely, produce power more economically—the new Oliver Hart-Parr Model A.

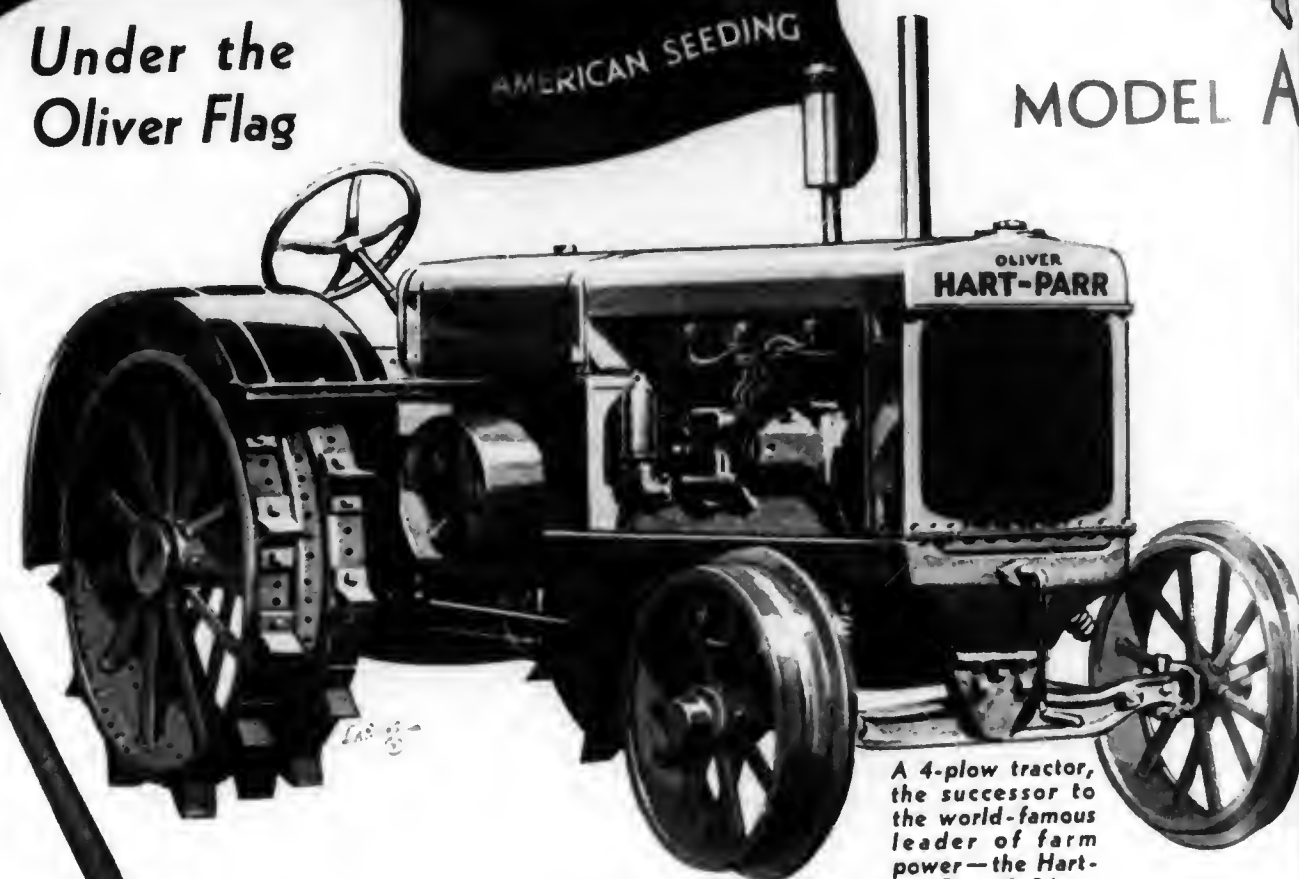
The new valve-in-head motor (patents applied for) burns kerosene or gasoline and from either gets more power per dollar of fuel cost. A new type force feed lubrication system, new type balanced cooling system, new type fuel system, make this most efficient type of motor even more efficient.

The Oliver Hart-Parr Cooling System directly forces the coolest water in the system against the hottest part of the motor, keeping the ignition chamber and the valves free from overheating. The problem of crankcase dilution is greatly lessened.

The power transmission parts from the 3-inch main bearings to the 3½-inch driving axle are larger, stronger, made of superior metals. Ball and roller bearings are more plentifully used. Metal has been placed where metal counts.

The Oliver Hart-Parr Model A, in chassis, motor and transmission, offers every modern improvement and some that are entirely new. It is fully enclosed outside to protect the works within. Inside, it presents a

Under the
Oliver Flag



A 4-plow tractor, the successor to the world-famous leader of farm power—the Hart-Parr 18-36.

More ball and roller bearings
Really handy belt pulley
More driver comfort
New cooling system
Beauty and Balance
More alloy steels

60-inch over-all height
79½-inch wheel base
117-inch over-all length
39-inch inside tread
5600 lbs. of weight

new cleanness and trimness of design, free from the usual projections, and is much more accessible.

The Oliver Hart-Parr Model A also offers the farmer many new conveniences: the low, roomy, dust-proof platform; a movable, adjustable, spring-hung seat; automobile type foot clutch; handy gear shift lever. The operator rides in comfort with a fine view of the work.

It also offers new operating advantages—the drawbar is adjustable up and down and in a wider arc to accommodate any tool or any setting of a tool to meet unusual conditions.

The belt pulley is right out in the open so that the belt can literally be thrown on.

It's from the shops of Hart-Parr, founders of the tractor industry, long holders of leadership in power.

Besides the sensational new Row Crop, this new Oliver Hart-Parr takes its place under the Oliver Flag that leads to lower costs of producing crops.

Write for immediate information on this most powerful tractor of its size on 4 wheels.



OLIVER FARM EQUIPMENT COMPANY
400 West Madison Street
Chicago, Illinois
Please send me complete information on the new Oliver Hart-Parr Model A tractor.

Name
Address
R. F. D. City State
Branches everywhere to serve you

OLIVER

June 7, 1930

PENNSYLVANIA FARMER

(789) 17

Electric Hot Water Incubator Proves Success

A 16,000-egg, oil-burning incubator at the hatchery of Howard Findlay of Chester county, Pa., recently was converted to electric operation by replacing the oil burner, and water coil, with a 35-gallon tank storage type electric water heater of 5,000 watts capacity.

Water is maintained in the tank automatically at a temperature of 140 degrees. A valve controlled by the air temperature within the incubator allows this hot water to circulate through the incubator, whenever the temperature falls below 100, and shuts off circulation whenever it rises above this point. The 35 gallons of hot water held in storage is a more than ample reserve in case of sudden changes in outside temperature, interruption of electric service, or putting in cold eggs to trays.

Uniform Temperature

This year when the owner put in cold eggs the temperature of the incubator dropped four or five points daily, and came back within about three hours to 100. When the hatching season is over, the length of time over which the incubator can be held at 100 degrees, with current shut off, will be measured. It has been estimated at from 18 to 24 hours. This is far longer than any probable interruption to electric service would last, but in case of sudden changes in temperature outside, or putting in cold eggs, this very large reserve maintains temperature evenly.

Cost of operation is always important, and it is interesting to know that it has cost but little more than oil to operate this incubator. When the savings in time, and absence of fire hazard and fumes, etc., are considered, it is much more economical than the former system. Little chicks held in the incubator room prior to sale appear to be brighter, the owner says, and ascribes this to the fact that they do not breathe any fumes from an oil burner.

The mechanical details are quickly outlined. The heater is a regular household water heater rebuilt for installation. There are two 2,500-watt heating elements each thermostatically controlled. One goes on when the water in the storage tank

falls below 140 degrees F; the second operates only when the water in the tank falls below 120 degrees, which is practically never except when heating up the system, or in case of failure of the first unit to operate. The combined capacity of both elements is such that the heater can raise about 20 gallons of water 100 degrees each hour.

Heat Regulation

The heater is set so that the water level is below the top entrance pipe to the incubator. Circulation is completed when the lower return pipe is connected to the inlet of the heater. A valve in the upper pipe controls circulation according to the air temperature within the incubator. The same valve is used that controlled the circulation from the oil-burning hot-water coil. With that, however, there was no surplus hot water storage.

Heat regulation within the incubator is very exact. A recording thermometer showed a normal variation of less than one-half degree.

The tank is well insulated and all outside pipes are well covered. To use electric heat economically, all heat losses must be prevented insofar as is possible. An expansion tank and air vent is placed at the highest point of the system. Water evaporates through the pipes, and a small amount must be added through the expansion tank from time to time. The expansion tank serves also as an air vent, which is necessary because air in the pipes will impede proper circulation.

This system can no doubt be adapted to take care of battery brooders and other similar uses requiring a mild even heat with plenty of surplus for sudden cold weather, interruptions to service, etc. We have on our lines a house heated on somewhat the same plan. House heating in this manner is yet in the experimental stage, and is also rather costly. Applications in the poultry industry where labor is an item, and the value of the product is high, as in the case of baby chicks, are undoubtedly practical, and more profitable to use than the older methods.—Stanley Bidlack, Rural Service Agent, Chester Valley Electric Company.

Garden and Truck Crops

By GILBERT S. WATTS

THIS evening I enjoyed a visit from a gardener friend located in the Marietta, Ohio, early cabbage and tomato district. Unusually severe freezes late in April caused serious damage to the cabbage crop. Possibly 30 per cent of the plants in the fields were killed outright. So extensive a loss may have an important bearing on the market for very early Pennsylvania cabbage. We are giving our planting the best care possible.

THE asparagus beetles have been very numerous in many patches this spring. Perhaps the easiest way to keep these pests under control in small plantations is to fence and then stock with active young chickens. How fortunate it is that chickens do not have a liking for asparagus.

UNSEASONABLY late frosts constitute one of the gravest risks that the tomato grower must face. When danger seems imminent one of the speediest, least expensive and absolutely sure means of protection is to bend the plants over to one side and cover lightly with soil.

If a handful of soil is first scooped into a mound close to the stem a very large and stiff plant may be covered with negligible injury. On one occa-

sion I left earth protected tomato plants covered during four days of cold weather. In case of rain, however, I imagine that might prove too long.

SEVERAL weeks ago I planted some bush beans through special bean plates used in a standard make of corn planter. A perfect job of spacing was secured, but I was afraid to use high analysis fertilizer in the machine because the mechanism put the fertilizer right in with the beans. Nevertheless I planted six rows in that way. The remainder of the piece was first made up into fertilized rows with a modernly equipped potato planter. After that the beans were planted without any fertilizer. In the first case we have a very poor stand of beans. In the second full rows of evenly spaced plants promise a bountiful crop.

IN another field a potato planter was used to throw up low, fertilized ridges on which squashes have been planted. The squashes are eight feet apart and midway between each two squash rows we have a row of extra early sweet corn which will produce additional returns from the land without interfering at all with the major crop.

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THE YOUNG PEOPLE

Roses All the Year

THE beautiful garden rose is one of the simplest roses to simulate and an amateur craftsman may readily make these charming blossoms by carefully following the instructions.

You will need blush pink crepe paper for the blossom, moss green crepe paper for winding the stem, spool wire for tie wire, a medium weight wire for the stem, artificial stamens and rose leaves, and a tube of library paste.

How to Make the Garden Rose

Center: Take about 15 rose stems, double them, so as to use both



ends, and fasten with a five-inch piece of No. 2 wire, leaving two short ends for handling.

Petals: For the petals, cut across the grain, a strip of selected crepe paper three and one-half inches wide and as long as desired, allowing 36 inches for each rose. Fold the strip, with the grain, to not exceeding eight thicknesses, and place rose petal pattern on the folded thickness, from tip to base with the grain, and cut out the petals. Each rose will require from 20 to 24 petals.

For the first three petals, stretch the paper all around the tips of the petals, and then pinch the edges together, bending them forward about one-eighth inch from the top, or curl and crush them over a knitting needle. Lay the three petals aside, and keep them separated, in the order in which they will be used.

Flute the next six petals all together, once in the center edge, and cup them and cut into two and one-half inch squares. Fold a square piece diagonally. Hold this diagonally folded square in the left hand, with the tip of the left forefinger at the center of the long folded edge. Wrap the paper around the finger closely, first one end and then the other. Slip the finger away and gather the bud about one-half inch down from the top.

Stem: For the bud and flower stems cut across the grain a strip of moss green crepe paper one-half inch wide, and as long as desired.

Full directions for completing the rose, assembling the spray and wrapping the rose stem will be found in our booklet mentioned below. Order your copy now and make these roses while you have the real rose as a pattern.

Some Picnic Games

The Bird-Catchers

DIVIDE the crowd into two teams and each team has its own goal line. One side decides on the name of a bird and when they are ready the two teams come toward each other until they are about five feet apart. Then the other team starts to guess the name of the bird the other side has chosen. When some one has guessed it then the children on the side whose name was discovered must run for home just as fast as they can for fear the opposite side will catch and claim them as prisoners.

Obstacle Race

The course is not longer than fifty yards, and a line of obstacles is set out for each one of the three teams, two men or boys in each team.

Runners No. 1 start the race. They are to:

1. Go through a barrel.
2. Sing up the scale.
3. Turn two somersaults.

The Boys' Cabin on the Hill

By C. S. WALKER

Where are the boys who would not enjoy having a part in building and furnishing such an ideal "club house?"

COUNTRY boys who have a hankering for carpenter tools may often surprise the home folks with their ingenuity and workmanship. All they usually need is a bit of help from parents in securing materials and tools.

A few years ago two boys built this splendid cabin photographed for your inspection. They did it in their spare time in just a few months. They

4. Take off their shoes and put them on again.

5. Climb a designated tree. They then hurry back to touch off No. 2 of their team, who must go through the same performance. There is one rule that is strictly enforced. That is that the singing must be done clearly and distinctly and as musically as possible!

Sweden's Four-H Song

THE Young Farmers' League of Sweden follow much the same plan as the Four-H clubs of America. Following is a translation of the song which has been adopted by these groups. It was written by Sigurd Svenson, secretary of the board of directors of the league.

Young Farmers' League Song

Let us listen to the song of the pines,
Let us love the beach where from the reeds nearby
Comes a murmur like a fairy tale from our happy childhood,
Like a gay melody which still lingers in the billow.
See our native place is the coope,
Where the queen of the fairy tale comes young and rosy every spring.
Windflowers smile in her pathway,
Yes, this is our native place
We are all young,
Let us sing a lively melody.

Let the message go over wood and hill
To the youth who are the flower of the land and the heart of the people,
Let it awaken those who sleep in the peaceful valleys.

For in the morning light,
In the loud murmur of the birch
And in the spring brook's roar,
From their sleeping homes
All the young people shall go forth
To plow and sow
Around the red and gray cottages.

Now is the time of plowing, now is the time of sowing.

The sowing time is spring, and spring is the time of our youth's happy conflict.
Let our seed be good, let it be covered up and sprout.

Let it shoot up and be nourished by our bright faith in the future.

Days after, years after,
The harvest will come,
We must stand together,
Large and small!
Hand in hand to victory we must go!

(To be continued.)



have parents who believe in encouraging boyhood's dreams, and these parents helped to provide the necessary slabs and the working tools.

The youthful builders did the rest, and I wish you could visit the interesting camp on the hilltop. It is twelve by sixteen feet—a one-room cabin, and they even made the furniture. That is rustic, too, and there are seats, shelves and a bunk, all lending atmosphere to this happy haunt.

The fireplace is very artistic and lends warmth and comfort in cool seasons when schoolmates and friends want to gather there for an outing.

The log slabs were fitted snugly together, and spiked to stout foundation beams inside. There are two doors made of lighter slabs, and the splendid windows are fitted with plain board shutters.

The visitors are legion and every one who comes into this woodland admires this cabin. It is built to stand for years—a product of boyish idealism and unusual skill.

Little Folks

A Discontented Boy

By LUCRETIA K. MAMMEL

KENNETH BROWN was seven years old. He lived on a lovely little farm with his father and mother and little brother Dickey. The home was near a small town where Kenneth went to school. His father took him to school in the morning, and his mother went for him when school was out.

Kenneth liked to go to school very much, but the trouble was he did not like to go home. He wanted to stay in town with his playmates and play in the streets. His grandmother lived in the town, and sometimes he was allowed to stay. But of course, his mother wanted him some of the time and there were so many things to do on the farm. Little Dickey wanted him to play with, too.

Every day when mother went to bring him home it was the same thing. Kenneth would say:

"Aw, gee, mother! Why don't you let me stay and play with the boys? There's nothing to do at home."

It made mother feel very badly to think her little boy would rather play in town than come home with her and little Dickey. "Why, Kenneth, dear!" she would say, "you have so many, many things you might do. You have your swing and your dog, and you have all the dirt you want in which to play. How would you like to live in the city and not have even a backyard?"

"I'd like it," grumbled Kenneth. "I don't have a sliding board or a seesaw here like they do in the play ground at school."

"But you can't have everything," patiently explained his mother.

Finally, mother got tired of this complaining and decided to let Kenneth see what it was like to live in a real city. So she sent him at vacation time to visit his aunt who lived in a nearby city. He was to stay ten days and not see Mother or Daddy or Dickey in all that time.

(To be continued.)



IF a cow slips in a meadow
Of clover pink and sweet,
Do you think she'll break the buttercups
That grow about her feet?
The cat-tails are not really tails
Of pussy cats you know,
They're only just a kind of grass
That in the meadow grow.
The tiger lily isn't fierce
Although her name is so,
She's just like all the other flowers
That sweetly bend and blow.
Now children, get a ruler
And a pencil sharpened fine
And see if you can draw a cow
That's just as nice as mine.
—Lahome Editor.

West Virginia.

Illustrations by Gertrude Wilson.



Let's see your best free-hand drawing of a cow. Prizes for the best. Send your letter to Little Folks' Corner, Pennsylvania Farmer, 7301 Penn Ave., Pittsburgh, Pa.

PASSING EVENTS IN PICTURES



1. On rainy days and other times when he cannot find a bone to work on this pup amuses himself blowing bubbles.

2. Mrs. Virgil McClure, President of the American War Mothers, places a wreath on the Tomb of the Unknown Soldier, Arlington Cemetery.

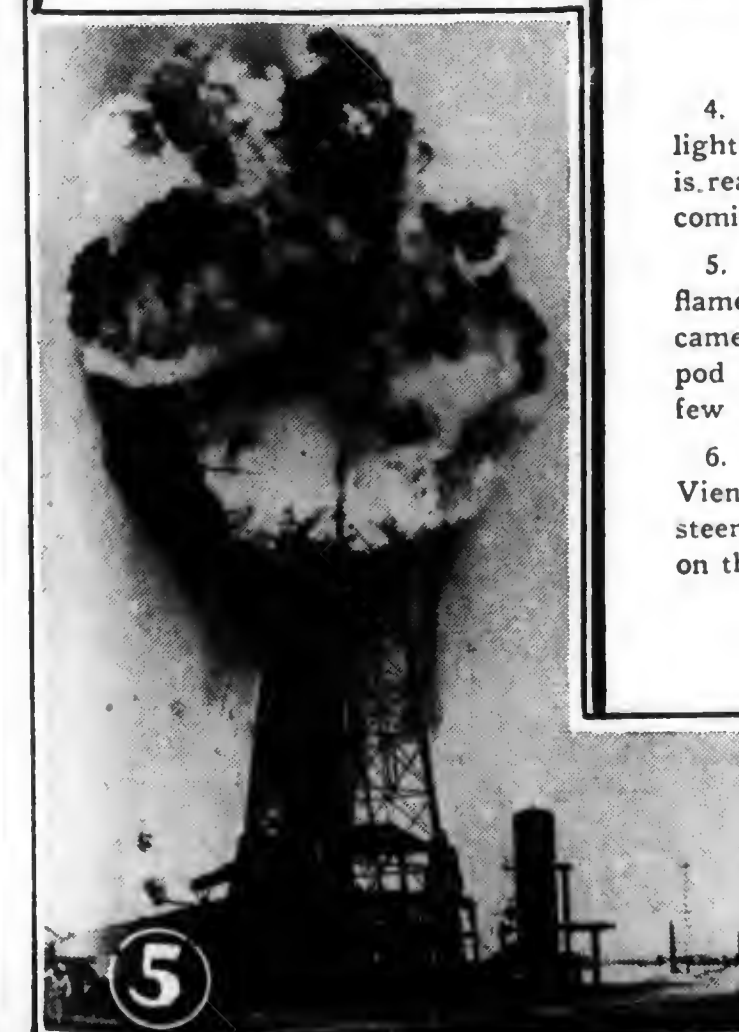
3. Malden, Massachusetts, celebrates its 300th birthday. Notables of New England and Old England take part.



4. It is a "hitching post," not a lighthouse. Montreal's mooring mast is ready for the British dirigible R-100 coming from England.

5. A Texas oil well bursting into flame as it came in for a gusher. The cameraman saved his film but his tripod burned. The derrick melted in a few moments.

6. It is a psychotechnical machine. Vienna motor license applicants must steer a pencil through confusing streets on the moving cylinder map.



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Farmer's Business Letter

THERE is added emphasis in this territory with respect to the better feeling in regard to business. More people are heard to talk about it, and it is entirely probable that confidence is on the way to being restored.

Farm conditions generally continue good, though weather has been unfavorable—cloudy and cold, with some rain. Corn made a great start, and so did the cutworms, with the result that much corn has had to be replanted in some sections.

Hogs Show Strength

The hog market continues to show strength—not much in the way of advances, but a good demand for hogs right along. The trade is about convinced that the supply of hogs for the remainder of the year will be less than last year. And with pork the favored meat under present conditions, no one wants to get caught short on it.

The run was pretty good considering the holiday week, the total at eleven points being only 20,000 short of last week when 488,000 were received. For the year to date the run is now 550,000 under a year ago.

There was a nickel gain in the average price this week, which now stands at \$10.10 against \$10.65 a year ago and an average of \$11.10 for the same week during the past five years.

Trading in the futures market was quite active and prices were 10 to 15 cents higher than last week. Light hogs for September delivery sold at \$10.35; medium weight hogs the same for September, and at \$10.25 for June delivery; and heavy hogs at \$10.05 for June delivery.

Cattle Lower

With a pretty liberal Monday run here the cattle market declined, but recovered later, and at the close was 25 to 50 cents under a week ago.

The week's supply at near 10,000 was 2,000 short of last week and about in line with recent weeks. For the year to date twenty markets have received 4,126,000 cattle, against 4,164,000 on the same date last year, 4,535,000 in 1928 and 4,906,000 in 1927.

Bulk of steer sales this week was at a range of \$10.12 to \$11.25, with the average at \$11.10, which was 40 cents below a week ago. Top steers brought \$14 this week, which was 35 cents under last week, and top yearlings sold at \$13, or 75 cents below last week.

Lambs Higher

The lamb market made further gains this week, with the supply the smallest in some time. The run here totaled only a little over 47,000, against 61,000 last week. Aged lambs were a half dollar higher, at the close, and springers gained \$1.12.5. Sheep were a quarter higher, with only limited supplies. Top aged lambs sold at \$10.75, and top springers at \$13.65.

Receipts included about 20,000 California springers, the supply from this state for the season now totaling 168,000 against 220,000 on the same date last year. The spurt in the lamb market is regarded as temporary, but likely to continue to the middle of next month when the Idaho start, and a liberal supply is expected from that state.

Grains Steady

The usual crop scares are appearing in grain trade reports, but they have little effect, because they are unimportant, and also because the trade is completely dominated by Farm Board operations. There was very little net change in prices during the week, the close being almost in the same notch as the opening. The only new development was in unconfirmed reports that the Canadian pool had made important export sales. Harvesting of winter wheat has already started in this country, first reports coming from north central Texas. Foreign crop reports were quite unfavorable, especially in Russia, where spring seeding is just being completed.

Chicago, May 31, 1930

Watson

Produce Market Review

THE Philadelphia egg market opened slightly higher on Monday but on Tuesday prices dropped back. On Thursday prices advanced one cent on both Western and nearby arrivals. The advance was rather unexpected. The quality of the eggs arriving was irregular but an improvement was noted in many shipments. The trade, while not operating freely, took a fair hold of the better stock and receivers were forced to push sales on undergrade

goods. The pre-holiday buying on Wednesday was fairly satisfactory and dealers cleared their floors fairly well. Storage packed goods were offered within a range of 26¢ to 27¢.

The New York egg market followed practically the same course as the market in Philadelphia. The market was firm at the close with the increased holiday demand. Nearby henry whites were quoted at 24¢ to 25¢ per dozen, nearby henry browns at 27¢ to 28¢ with lower grades as low as 24¢. Gathered current collections of mixed colors were quoted at 19¢ to 26¢ while Pacific Coast white eggs ranged from 27¢ to 34¢.

Butter Unsettled

The butter market was unsettled during the week. Arrivals of fresh butter were heavy in eastern markets during the early part of the week and prices declined. Trading continued unsatisfactory despite the lower price level and some of the finer grades were sent to storage. The very conservative policy of banks and warehouses in making loans on butter has undoubtedly curtailed speculative buying. Retail prices of butter are lower than for several years and it is believed that a low price is needed to keep consumption, especially in the face of industrial depression in many sections.

Plenty of Poultry

Receipts of live poultry were liberal in New York with the majority of the nearby arrivals consisting of broilers. The demand for broilers was slow except for fancy stock. The market held steady on Rocks and Reds but was irregular on Leghorns. Leghorn fowl were quoted at 20¢ to 21¢ per pound and colored fowl at 24¢ to 25¢. Rock broilers were selling at 30¢ to 45¢ per pound, and at 25¢ to 38¢ and Leghorns at 15¢ to 30¢. Long Island and other nearby ducks brought 20¢ to 23¢. Squabs brought 25¢ to 30¢ per pair with jumbo fancy squabs bringing 60¢ to 75¢. Dressed poultry receipts from the nearby states were light. The market was about steady

with a fair demand for broilers. Broilers were quoted at 40¢ to 48¢ per pound and squabs white at 40¢ to 45¢.

Strawberry production in the late group of states, according to a recent report issued by the U. S. Department of Agriculture, is expected to be about 3 per cent lighter than in 1929, due to a reduction in acreage and to lower yields. A crop of 74,558,000 quarts of berries is estimated for this group. Of this total, Pennsylvania expects 6,512,000 quarts and New York 9,658,000.

The volume of strawberry shipments from the Eastern Shore sections of Virginia, Maryland and Delaware is running behind that of a year ago. This decrease appears to be due to a later season as well as the fact that yields are light and acreage smaller.

The New Jersey berry season has opened and shipments by truck are fairly active. In general the market has been quite satisfactory this week with a good demand for good berries. There have been fairly large quantities of poor berries from all sections which sold slowly at low prices. The various varieties have been selling at prices ranging from 10¢ to 20¢ per quart in the Eastern markets.

Asparagus

Cool weather through the asparagus season caused receipts to fall off sharply in Philadelphia and New York. There was also more stock showing white. The demand was fairly active and prices advanced, with the best stock as high as \$4 per dozen bunches in Philadelphia and \$5 in New York. The recent rains improved potato prospects in the Eastern Shore of Maryland and Virginia. The first cars from Northampton county are expected around June 10. South Carolina is the center of supply at this time and within the next week North Carolina will begin active shipping. The crop in North Carolina is lighter than last year due to prolonged drouths. It appears as though there will be little overlapping of producing sections this year and if this continues up the coast it will be a great help to all concerned, and especially to the New Jersey growers.

W. R. W.

LIVESTOCK

PITTSBURGH

Monday's supply was light, around 30 carloads, but the demand was not urgent and prices showed little change. A few well-finished heavy steers brought \$12.25, but at the close good weight steers could have been had for \$12, and the market was practically on that basis. A few very nice heavy-weight steers brought \$11.50 to \$11.75, with fleshing kind \$11.12 to \$11.25 and fair light steers \$10.50 to \$10.75. Best light steers here went at \$11.40, with very useful fleshy kind around \$11 and fair killers \$10.25 to \$10.50. No feeder steers on sale. Heifers were scarce, few good enough to sell above \$10. Fat cows were wanted but good ones were too few to make a market. Medium class sold better than last week at \$8.50 to \$9.25 largely. Canners brought \$8.50. Probably \$8.50 would be about the limit for good fat cows. A few nice heavy-weight bulls brought \$9.25 to \$9.50, bulk of good butcher bulls \$8.25 to \$8.50 if not too heavy. Heavy bulls sold at \$8.25 to \$8.50, a few very choice at \$8.40. Dairy-bred bulls ranged from \$7 to \$8 according to flesh, a few light thin bulls at \$6.50 or less.

Prime fat steers 12 00 to 12 25
Good to choice, do. 11 75 to 12 00
Fair to good, do. 11 50 to 11 75
Plain heavy steers 10 50 to 11 00
Good heavy-weight steers 11 50 to 11 75
Choice butcher steers, 1,000 to 1,150 lbs. 11 00 to 11 50
Fair to good, do. 10 50 to 11 00
Ordinary to fair, do. 10 00 to 10 50
Common, do. 9 00 to 9 75
Good light butcher steers 11 00 to 11 25
Good to good light steers 10 25 to 10 75
Common to medium, do. 9 75 to 10 25
Inferior light steers 8 50 to 9 50
Feeders 9 00 to 10 00
Cocker Nominal
Choice fat heifers 10 00 to 10 50
Good to choice heifers 9 00 to 9 50
Common to fair heifers 7 00 to 8 50
Choice fat cows 7 50 to 8 00
Good to choice fat cows 6 50 to 7 50
Common to fair cows 5 75 to 6 50
Fresh cows, calf at side 50 00 to 125 00
Choice heavy bulls 8 25 to 8 50
Choice heavy butcher bulls 8 75 to 9 00
Good butcher bulls 8 25 to 8 75
Fair to good bulls 7 75 to 8 25
Common to fair bulls 7 00 to 7 75
Inferior bulls 6 00 to 6 75

Clipped

Good to best wethers 5 50 to 6 00
Good mixed 5 00 to 5 50
Fair to good, do. 4 00 to 5 00
Common to fair 3 00 to 3 75
Inferior sheep 2 00 to 3 00
Good to best lambs 10 75 to 11 25
Mixed lots 9 00 to 10 00
Culls and common 5 00 to 8 00
Spring lambs 8 00 to 13 00

Calves

Monday's supply was about 1,500 head. Top calves were steady at \$12 per cwt. Seconds were rather slow at \$8.50 and inferior brought \$5.75.

CHICAGO

Cattle Chicago, June 2.—Cattle receipts totaled around 20,000 head. The market was steady with top steers selling at \$14.

Hogs

Sixty-six thousand head, including 40,000 "directs," made up the supply. The market was steady to a dime higher. Top hogs brought \$10.50, bulk \$10.10 to \$10.35.

Sheep

About 12,000 sheep and lambs were on sale. Best kinds were steady, others unevenly lower. Best springers brought \$13.50, while top on yearling lambs was \$10.50.

LANCASTER

Cattle Lancaster, June 2.—Today's receipts were about 700 head. The market was fairly

active at steady prices. Best 1,300-lb. steers brought \$12, while the bulk of steers sold at \$10.25 to \$11. Stockers and feeders were slow at steady prices. Two hundred calves were on sale. The market was steady to stronger. Best yearlings went at \$13.

Hogs

The supply consisted of around 300 head. Market steady to strong. Top hogs, in the 160 to 230-lb. class, sold at \$11.75.

Produce Market Quotations

PHILADELPHIA
Butter.—Higher than extras, 35¢ to 36¢; 92 score, 34¢; 90 score, 32¢.
Eggs.—Fancy select, 28¢ to 30¢; extra firsts, 25¢ to 26¢; firsts, 24¢; seconds, 21¢ to 22¢.
Poultry.—Live, broilers, 21¢ to 22¢; old roosters, 15¢ to 18¢; pigeons, pr., 15¢ to 20¢; ducks, 15¢ to 20¢; turkeys, 16¢ to 25¢.
Fruits.—STRAWBERRIES, Del. Va., N.J. & Md., 32¢ to 41¢ crates, best, \$2.50 to \$7.50; AP- PLES, N. J. & Pa. bus., Winesap, \$2.75; Romes, \$2.50 to \$3.25; Ben Davis, \$1.50; HUCKLEBERRIES, N. C., 32¢ to 41¢ crates, best, \$8.
Vegetables.—ASPARAGUS, doz. bunch crates, green, N. J., Md., Dela. & Pa. \$1.45 to \$2.25; BEANS, N. C., bu. hmpas, var., \$1.50 to \$2.25; SWEET POTATOES, N. J., Md., Dela., 1/2 bkt., \$1.25 to \$1.75; RIBBONS, Pa. & N. J., per bunch, 14¢ to 30¢; SPINACH, Pa. & N. J., bu., 10¢ to 25¢; PEAS, Va. & Md., bus., 50¢ to \$2; N. J., 1/2 bkt., \$1.41 to \$1.75; MATOES, Pa. hot house, per lb., 10¢ to 25¢; RADISHES, Pa. & N. J., bus. bunch, red & white, 25¢ to \$1; LETTUCE, N. J., crates, Big Boston, 50¢ to \$1; POTATOES, Maine Gr. Mt., U. S. No. 1, 100-lb. sack, \$2.50 to \$3; S. C. hba., Cobblers, U. S. No. 1, \$4.75 to \$5.25; TURNIPS, N. J., bus., 75¢; KALE, Pa. — N. J., bus., 10¢ to 25¢; CAROLINE, Pa. & N. J., bus., 20¢ to 35¢; COL- LARDS, Pa. & N. J., bus., 10¢ to 25¢.

NEW YORK

Butter.—Creamery, higher than extras, 33¢ to 34¢; firsts, 29¢ to 32¢; seconds, 27¢ to 28¢; 92 score, 34¢; 90 score, 32¢.
Eggs.—White, nearby, average, 25¢ to 26¢; extra firsts, 23¢ to 27¢; mediums, 24¢ to 25¢.
Poultry.—Live, by freight, fowls, 21¢ to 25¢; broilers, 20¢ to 23¢; old roosters, 16¢; geese, 12¢; ducks, 16¢ to 18¢; turkeys, 15¢ to 25¢.
Fruits.—STRAWBERRIES, N. J., 10¢ to 25¢.

LANCASTER

Butter.—Country butter, 50¢ to 55¢; cream- ery butter, 45¢ to 50¢.
Eggs.—Fresh, 24¢ to 26¢.
Dressed poultry.—Chicken, \$1.25 to \$2.50 each; springers, 65¢ to \$1.25 each; ducks, \$1.50 to \$2.50 each; squabs, 25¢ to 50¢ each.

Fruits.—APPLES, 20¢ to 30¢ 1/2 pk. STRAW- BERRIES, nearby, 25¢ to 30¢ per qt. box. Vegetables.—A S I A H A G U S, 10¢ to 20¢ per bunch; BEANS, (Lima), 40¢ pint box; BEETS, 8¢ to 10¢ bunch; CABBAGE, 10¢ to 20¢ head; CARROTS, 8¢ to 10¢ bunch; CAULI- FLOWER, 25¢ to 40¢ head; CELERY, 10¢ to 25¢ bunch; CUCUMBERS, 8¢ to 15¢ each; EGG PLANTS, 20¢ to 30¢ each; ENDIVE, 5¢ to 10¢ head; LETTUCE, 10¢ to 20¢ head; MUSH- ROOMS, 25¢ to 30¢ per pt. box.

YORK

Butter.—Country, 40¢ to 45¢; separator, 45¢ to 50¢.
Eggs.—Fresh, 24¢ to 26¢.
Poultry.—Hens, 22¢ to 26¢; Leghorns, dressed, \$1.25 to \$1.50 each; heavy hens, \$1.40 to \$1.50 each; springers, dressed, \$5.00 to \$6.00 each.
Vegetables.—POTATOES, 18¢ to 25¢ 1/2 pk.; \$1.75 to \$2.75 per bu.; new, 18¢ to 20¢ 1/2 pk. CAR- BAGE, 10¢ to 25¢ head; CELERY, 8¢ to 20¢ stalk; FLOWERS, 25¢ to 40¢ head; CAULI- FLOWER, 25¢ to 40¢ head; BEETS, 8¢ to 10¢ bunch.

PITTSBURGH

Butter.—Nearby tubs, 32¢ extra and standard, 27¢ to 28¢; 80 score, 34¢; 88 score, 29¢; Prints 1¢ higher.
Eggs.—Nearby firsts, second-hand cases, 21¢ to 22¢; extra firsts, new cases, 22¢ to 23¢; nearby henry whites, 23¢; browns, 22¢ to 23¢.

Poultry.—Live hens, heavy and medium, 24¢ to 25¢; Leghorns, 20¢; broilers, 35¢ to 40¢; turkeys, 25¢ to 30¢; old roosters, 15¢; geese, 12¢; ducks, 16¢ to 25¢; pigeons, 35¢ to 45¢ per pair; turkeys, 18¢ to 24¢.

FEED MARKET

The following quotations are for transit and nearby shipping. May 29, according to the U. S. Bureau of Agricultural Economics. They show the approximate cost delivered per ton (all in 100-lb. sacks) and grain per bushel in carlots arrival draft basis delivered on track at Phila- delphia and Scranton rate points:
Brn, \$30.50 to \$32.50; standard middlings, \$30.50; flour middlings, \$33; cottonseed meal, 43 per cent, \$47.50; gluten feed \$37.50; No. 2 white oats, 53¢; No. 3 low corn, 95¢.

THE WOOL MARKET

More activity was reported in the wool market last week, both at the Atlantic seaboard and the West. Prices at the latter are about five per cent higher than at the recent low point. Foreign markets are also firm as a rule.

In the fine-wool territory of southwestern Pennsylvania, a large amount of wool changed hands. Growers sold freely at 25¢ per pound, the wool going largely to representatives of eastern mills.

The U. S. Department of Agriculture's Market News Service quotes fine strictly combed wool (delaine) at Boston at 30¢ to 31¢, fine clothing 29¢ to 30¢, half-blood strictly combed 28¢ to 29¢, three-eighths blood strictly combed 27¢ to 28¢, clothing 26¢ to 27¢; quarter-blood 25¢ to 26¢, and common and braid 25¢ to 26¢.



Milk cooling house of E. L. Shockley of near Snow Hill.

Optimistic Dairymen

By L. F. COLLINS

ALTHOUGH Worcester county, Maryland, boasts a million-dol- lar industry in her potato rais- ing, and has eight other major indus- tries—tomatoes, sweet potatoes, strawberries, poultry, fruit, oysters and fish—seven of which are connect- ed with the soil, yet the baby of the soil, dairying, and it is only a little over a year old, bids fair to bring an even hundred thousand dollars into the coffers of its supporters this year, as well as adding much to the values of the farms through its production of animal fertilizer, that the many acres of wornout land need.

Up to July, 1928, there were ten dairy herds on Worcester's 191,650 farm acres, estimated as worth about \$200,000,000, and they supplied milk only for consumption by the leading owners. In this typically rural county nearly every family had a cow, but there were few pastures. Acres and acres of waste land, too poor to raise crops, owners too poor to get it into a plow or just brush. The natural fertility of the soil had been exhausted in the years since early colonization.

In good farms continued overprod- uction of potatoes and consequently low prices had reacted unfavorably for the farmers. So the county agent, prominent farmers and public spirited business men—who felt the pinch of the farmers' lack of money, also— began to look about for a new indus- try that would prove an all-year- round and fairly sure thing.

The Beginning

On October 1st, 1928, a cooling sta- tion was opened in Snow Hill, the county seat, and seventeen cans of milk were shipped that night to Phila- delphia. Things did not look very encouraging then, but all county or- ganizations pulled together. Carloads of fine Guernseys, Jerseys and Hol- steins were shipped in and sold for cash by dealers. Progressive farmers attended sales and brought in blooded dairy stock to improve their herds and much of the sixty thousand dol- lars that the cooling station brought into Worcester county last year has gone into equipment and cattle. This shows that the farmers are taking this proposition seriously.

At present 1,150 pounds of milk, or 20 cans, are being shipped daily from the local station, nightly taken north by truck to be delivered in the city next morning. That is just one hun- dred and three more cans than when the station was opened. There are over one hundred shippers and the number is growing. Between six and seven hundred cows are estimated to be in the Snow Hill district. Guern- seys predominate.

Snow Hill cooling station district, which even is served by farmers in

Virginia, is the proud possessor of the best milk cooling houses in the Phila- delphia milk shed, and pictures have been taken of them for exhibition elsewhere as models of their kind. They are uniform, water cooled and the pride of the county agent, who declares that the milk industry, in his opinion, has brought much prosperity to the county. This is true, not only through the monthly checks, which form Worcester farmers only winter produce revenue, except from poultry, but through the animal fertilizer produced, mixed with bedding and straw that binds and enriches the soil, not only for this year, but for future seasons.

C. T. A. Report

THE Central Pennsylvania Guern- sey Breeders' Association finish- ed its sixth year, March 1st, 1930, with thirty-three whole-year mem- bers. There were 545 cows in the Association during all or part of the year.

The registered Guernsey cow, "Gol- dies Beauty of Ebensburg" No. 99829, ten years old, belonging to the Grif- fith Estate, has an average produc- tion of 17,121 lbs. milk and 726.4 lbs. butterfat for the last three successive years.

The results for the six year's test- ing are as follows:

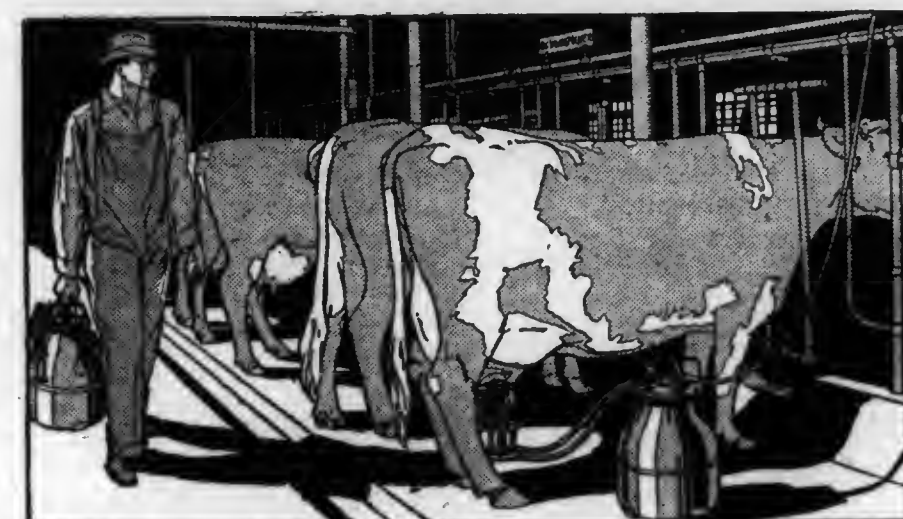
| Year | Av. No. Cows | Lbs. Milk | Lbs. Fat |
|------|--------------|-----------|----------|
| 1925 | 188.99 | 6149 | 283.7 |
| 1926 | 436.49 | 6538 | 294.2 |
| 1927 | 429.17 | 6817 | 298.5 |
| 1928 | 525.86 | 7099 | 303.3 |
| 1929 | 438.73 | 7114 | 318.1 |
| 1930 | 432.14 | 7079 | 335.6 |

Twenty-five herds with an average of five or more cows exceeded an average production of 300 lbs. of butter- fat. A complete list of these herds follows:

| Owner | Breed | Lbs. Milk | Lbs. Fat |
|-------------------|-----------------|-----------|----------|
| Paul Hoover | R.&G.G. | 8694 | 418.7 |
| A. J. Yahner | G.J. | 7081 | 413.1 |
| S. H. Markey | R.G. | 8896 | 409.0 |
| Victor Kline | Mixed | 7662 | 389.3 |
| Griffith Est. | R.G. | 7941 | 384.2 |
| S. B. Wasson | R.&G.G. | 6997 | 383.0 |
| Knarr Bros | R.&G.G. | 7437 | 382.3 |
| W. J. Hoover | R.&G.G. | 6915 | 381.3 |
| D. A. Morrow | R.G. | 7926 | 378.2 |
| Augusta Farabaugh | R.&G.G. | 7688 | 377.7 |
| Wm. Morrow | R.&G.G. | 7973 | 374.4 |
| W. K. Karthelm | R.&G.G. | 7073 | 374.4 |
| A. A. Feighner | R.&G.G. & P.G. | 6270 | 363.6 |
| J. W. Burket | R.&G.G. | 7869 | 358.5 |
| Mrs. C. M. Schwab | R.G. | 6891 | 357.4 |
| E. H. Karthelm | R.&G.G. | 6857 | 349.4 |
| Colver Dairy Farm | R.H. | 10292 | 315.4 |
| J. E. Hindman | R.G. | 7405 | 344.1 |
| E. E. Ellenberger | R.G.G. | 7151 | 340.3 |
| J. F. Hosterman | R.G. | 6852 | 338.0 |
| Geo. H. Hosterman | R.G. & H. | 6907 | 322.5 |
| M. C. Bagshaw | R.G. | 7815 | 320.9 |
| Wm. Irvin Co. | R.G. | 7017 | 310.3 |
| Hartslog Farm | R.G. | 6769 | 309.8 |
| E. H. Krumenacker | R.&G.G. & Mixed | 6515 | 301.7 |

Harry S. Haagen and Geo. A. Luce, Testers.

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DE LAVAL Magnetic is the World's Best Milker

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The De Laval Magnetic Milker has demonstrated its superiority in the field of machine milking in a striking way. The proven De Laval principle of master pulsation control, now accomplished by means of magnetic force, gives absolute uniformity and regularity in milking—every cow milked at the same speed, in the same way, at every milking. No other method of milking offers this all-important feature to a comparable degree. In simplicity of installation and operation, in sanitation, in ease of handling, as in the better job of milking it performs, the De Laval Magnetic is outstanding—a fact proclaimed and vouched for by thousands of users.

For perfect milking, the saving of valuable time and labor, and the substitution of pleasure and satisfaction for drudgery, the De Laval Magnetic Milker is distinctly in a

class by itself, offering new high standards of milking.

Outfitted for milking one to 1000 or more cows. Operated either by gas engine or electric motor.

The De Laval Utility Milker For the Low Price Field

The De Laval Utility Milker, designed for the lower price field, is a quality milker ideal for small herd owners with whom price is a limiting factor. De Laval Utility units operate on any single pipe line, a fact of im- portance to dairymen who want the advan- tages of De Laval milking, but who feel that they must retain a part of their original investment.

Free Trial

You owe it to yourself and family to ascertain these important milker facts for yourself. The one best way



For economical service

*under a
wide
variety
of
conditions*

ONE of the outstanding features of the Ford 1 1/2-ton truck is its capable performance. With an engine that develops 40 horse-power at 2200 r.p.m., and a 4-speed transmission which provides a great range of speed and power, it has the ability to carry heavy loads under difficult road conditions, and ample speed to shorten the distance between two points, with no sacrifice of operating economy.

The Ford truck will finish the work it is given to do, for it is strong and reliable throughout. A new spiral bevel gear rear axle, heavier front axle and spring, sturdy frame, steel-disc wheels, and the extensive use of special steels and fine steel forgings all contribute to its strength and long life.

Safety is increased by the new front brakes, which have been enlarged to

the same size as those on the rear wheels. Brakes are of the mechanical type, internal-expanding, and all are fully enclosed. Windshields are of Triplex shatter-proof glass.

Bodies of the Ford truck have been improved in appearance and comfort. They are strong, with ample loading space of carefully planned dimensions. The standard stake body and the platform body, equipped with grain-sides or cattle-racks, are widely used for agricultural purposes. Either the enclosed cab illustrated, or an open cab, can be supplied. Both are roomy and comfortable.

Let your Ford dealer show you how well this truck is adapted for hard work and long service, and at what low cost it can be placed and kept in operation.



PENNSYLVANIA FARMER

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June 14, 1930



On the Pacific Northwest Tour.—
The gateway to Glacier National
Park, Montana; friendly bears in
the Yellowstone; and a few of the
reasons why Portland, Oregon, is
called the City of Roses.

Philadelphia

Pittsburgh

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Pyrox Pays Better than Home-Mixed Sprays, Grower Says

IN comparative tests, hundreds of successful growers have proved that Pyrox is not only easier and safer to use than messy home-made bordeaux mixtures—but is also cheaper. Pyrox-protected potatoes pay extra cash from extra yields of better quality.

The experience of Mr. C. S. Newcomer of Chambersburg, Pa., is typical of the results obtained by Pyrox users. He writes:

"This season I made a test comparing Pyrox with home-made bordeaux. Seed, fertilization, cultivation and soil conditions were the same. However, my yield on Pyrox-sprayed plots was 385 bushels per acre, an increase of 70 bushels over the plots sprayed with home-made bordeaux which yielded only 315 bushels per acre.

"Pyrox is easy to use—I need but a few minutes to put the material in the spray tank and I am ready to spray. There is no nozzle trouble. Pyrox stays on the vines through hardest rains, and goes farther. Because of its soft, smooth, creamy fineness Pyrox will go through small holes in the nozzle disc resulting in greater ease in developing and maintaining pressure.

"My Pyrox-sprayed potatoes will show, at \$1.00 a bushel, at least \$70.00 more per acre. They are more uniform in size, smoother and cleaner in appearance than those sprayed with home-made bordeaux."—C. S. NEWCOMER.

Gets 15¢ to 20¢ per bu. Above Market Price

Mr. H. C. Rineard, of York, Pa., writes:

"I raise large acreages of corn, potatoes, wheat and hay so I must make all my labor count. That is one reason why I like Pyrox—because of its ease of preparation and application



Mr. C. S. Newcomer of Chambersburg, Pa.

as compared with home-made bordeaux.

"This is my second year using Pyrox and I certainly find that it gives me the control of insects and disease on my potatoes, and also improves the quality. I have been getting an increase of 100 bushels per acre, and an average of 15 to 20 cents per bushel better than the prevailing shipping price for my Pyrox-sprayed potatoes."—H. C. RINEARD & SON—November 6, 1929.

At \$1 a bu., Mr. Rineard's extra profit obtained with Pyrox amounted to \$100 per acre! And this is in addition to the extra price obtained per bushel.

Pyrox kills bugs, controls blights, and other diseases, and stimulates plant growth. It is quick and easy to use. Sprays in a fine mist—does not clog nozzles. Sticks like paint to plants, even through severe storms. Now lower priced than in 31 years.

Write us for facts which prove that you can actually cut your production costs—get more profit from your potatoes—by spraying with Pyrox. Please mention your potato acreage.

BOWKER CHEMICAL COMPANY
419 Fourth Ave., New York, N. Y.

THE NEW IMPROVED
Pyrox
REG. U. S. PAT. OFF.



Farm Facts and Fancies

By ALVA AGEE

THE receipt of a "chain" letter is far from complimentary unless one's name was chosen at random by a stranger. The presumption is that one is superstitious enough to be forced to keep the letter going through fear of some ill or hope of some gain. This letter was supposed to originate from some army man who fought in Flanders. I should be quite willing to incur any unpleasantness due to breaking the chain.

This particular form of silliness was in full swing quite a good many years ago and should be completely in the discard. It appears that it is not. Anybody breaking such a chain has the reward of strengthening his confidence that he has common sense. A foolish doubt on that score dogs some who keep up a brave front out in the world.

Curious Beliefs

I once heard a well-educated man affirming that research had convinced him that left-handed people are brighter than right-handed ones. Maybe so. There are many people of good judgment who keep in mind a lot of "signs" and "omens," and the combination of judgment and omens is a puzzle to me. I have known sensible housewives who would not undertake any new work on Friday because they believed the day to be unlucky. I remember a good dinner I got through willingness to be a guest invited at the last moment because there would have been thirteen at the table if I had not been there, and some would have been uncomfortable on that account.

A good business man once told me that he always found himself unwilling to put his right shoe on first, and he chose to follow as a mental urge directed. Of course it was only habit that led him to reach for the left shoe first, and it didn't matter because the right foot got just as good a fit in the remaining shoe.

Prejudices

One's judgment often is clouded by unreasonable prejudices. Racial prejudices have been back of many a war. If the reader will go over a list of acquaintances he probably will find some one he does not like at all, and yet could not assign any reason worth mentioning. A particular flavoring in a food, however slight, makes some people physically ill.

It is unfortunate that the common sense we may have must be hampered in its guidance of our lives by an assortment of prejudices for which we cannot find ground of justification. Some of us have heard of the man who railed at middlemen until the matter became an obsession. When critically ill he ordered his family to send for the undertaker instead of a physician, basing his demand on the fact that he never had had any use for middlemen.

Witches

A reader recently wanted something done about some witchcraft practiced in his neighborhood. He should accept the editor's statement that a witch cannot hurt any one who does not believe in it and its craft. That is a sure enough defense for a sensible person.

The matter of fairies is something else. When Maude Adams, in Barrie's delightful play Peter Pan, that ran in New York for years, would stop and ask the little children whether they believed in fairies, the response was whole-hearted. Older persons did well to remember that imagination is absolutely necessary to the seeing of fairies, and imagination is exactly what children possess in abounding measure and their elders do not. It follows that the only persons to decide such a question must be children. But the case of witches is clear enough—they are helpless in the affairs of those who know that witches do not exist.

Burning Organic Matter

It is a hard time for people in middle life. They do not surrender old beliefs readily, and farm science is giving us something new to consider right along. If we had a burning of organic matter was soil robbery. We knew the soil's need of vegetable matter, and when fire destroyed more all the surplus wheat there is the presence of the corn-borer compelled much burning of cornstalks and the Illinois Experiment Station is making a test of the fertilizing value of stalks when plowed down and stalks when burned.

The test of a single crop rotation of four years does not permit drawing of conclusions by the State, but the gain from plowing down has been only slight so far. I am wondering whether this Illinois corn soil is not naturally in much better physical condition and much better supplied with organic matter than the most of our eastern land, and so loss by burning is distinctly less than it would be on an eastern farm. Speaking without knowledge, I could readily believe the half the value of stalks plowed down in the mature and bulky organic matter added to the soil. Burning anything is probably poor business unless necessity compels.

Plant Pests

A reader writes: "You refer to the control of snails, ants and aphids. You not give me some additional information?" Well, the fight is continuous, but we keep the ants off our place, and so we put a preparation made for the purpose in tin cans that were also made for the purpose of moving the jars now and then and see new paths of ants. The poison is eaten and is carried back to the nest where the young are destroyed. Half-dozen of these jars, kept supplied with the poison, do the work for lawn and garden. Now and then new nest breaks loose, and we use kerosene for quick destruction, but a rule keep fairly free from ants.

Snails probably are even more persistent. In the evening the ground is moistened and we scatter a mixture manufactured for control of snails on plants and ground. It is only a attractive form of poisoned bait. Young snails may appear and the application must be repeated, and is best to remove any heavy foliage lying on the ground. We do not get all of this pest because later on we find more damage and again we poison.

A small hand-sprayer and nicotine sulphate, diluted according to directions, do the work for the garden. If applied before the leaves curl, the experience is that some of the lice escape destruction, and in a year or two another application is needed. We left our place for ten months last year, and life was a battle with the pests for six weeks this spring. Finally we put fear into their bones.

May Grade Honey

MANY beekeepers mistakenly believe that they are forbidden to use the United States Standard for honey unless they have special permission or unless a federal inspector has inspected and graded their honey. Says James I. Hambleton of the Bureau of Entomology, U. S. Department of Agriculture.

"It should be clearly understood," says Mr. Hambleton, "that any who complies with the U. S. grades for honey is entitled to use the United States grades and a grade stamp." A circular giving information on grading may be had on application to the Division of Bee Culture Investigations, U. S. Department of Agriculture, Washington, D. C.

The Yardstick

NOTICED an article on page two of your issue for January 4th, 1930, entitled "Censure and Approval" in which I heartily agree with you insofar as any public official is concerned. He should always have our earnest cooperation on any matter pertaining to public business.

I think Mr. Legge is doing his best. What he is doing, but I think that he is doing it in a way that will tend public money on perishable security is not the right way to help the farmer. There is plenty of room in the farmer's granaries to store all the surplus wheat there is in this country and the farmer generally knows when to sell without you or me or Mr. Legge telling him. But due to the conditions that exist today, the day of road building, school improvements and all other necessary causes for expense connected with what we call making a living for the farmer and his family, he must sell his wheat or any product from the farm as soon as it is harvested. He must then sell at prevailing prices in order to meet the loan.

Without Interest

If Mr. Legge and his Board would lend the farmer the \$500,000,000 the federal government has appropriated, and as much more as he needs on approved security, to be paid back to the government, say, at the rate of 1% on the hundred without interest, the farmer would have twenty years to help himself and the government would really be helping the largest and most important industry in the country without losing anything. It would start the wheels of industry in every line in this broad land of ours, and all other industries depend on the farmer who produces what we eat and wear. First come clothes and board and then other necessities and luxuries.

But think of the enormous amount of the producer is called on to produce in the form of usury, or what we call interest, to be paid to the non-producer for the privilege of using what we call money but is really our products of labor. Interest on money makes a short yardstick for the producer and a long one for the non-producer. Money loaned at six percent makes the non-producer's dollar worth 106 cents and the producer's worth 94 cents.

The Trouble

I think if you consider our national state, our county, our township, our church and our individual obligations you will see what is the trouble. It is not only the farmer but the whole nation.

Make a yardstick the same length for the rich and the poor and our problem is solved and our trouble is ended. Charles Leventry, Cambria county, Pa.

The fundamental error in all such thinking is to regard labor as the producer. Capital is a producer, as is labor. If it were not so our responsibility would be under the necessity of farming without any capital and without any equipment. The operation of capital and labor is essential to all production, and neither can continue to participate without the other. For convenience capital is expressed in definite terms of money and its wages in terms of interest or dividends, but such expressions do not affect the principle involved.—Ed.



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Guaranteed for Length, Strength, and Weight

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only manufacturer of both binders and twine has put the best quality it is possible to produce into every foot of every ball.

Uniform length means uniformity in thickness; there are no extremely light or heavy places that might cause the knoter to miss tying. McCormick-Deering Twine is correctly twisted so that it will not kink and snarl when running from the ball, and the original "Big Ball" winding with the Patented Cover makes this assurance doubly sure. This year it will not pay to take chances. Buy the twine that looks good, is good, and has been time-tried and found completely satisfactory—the old reliable McCormick-Deering.

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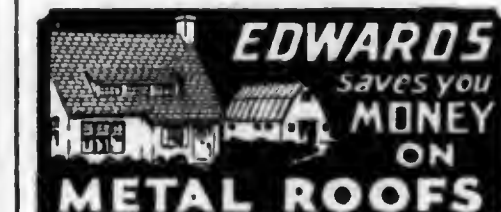


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The Little Wonder Weed Extirpator will positively destroy them.

A spraying solution (not a chloride); costs only 6¢ per gallon; will not ruin the soil nor kill cattle. Write for free illustrated booklet.

REBER CHEMICAL COMPANY
Reading, Pa.

Every dollar you save in your purchases is a dollar added to the profits of your farm.

Every dollar spent for unsatisfactory merchandise is a dollar added to your costs. Read the advertisements and be guided by them.

ANSWER THEM and say you saw their advertisement in the Pennsylvania Farmer.

EVERY 4th Forkful of Long Hay

you feed
is
WASTED



THE same reasons that led you to turn from corn fodder to silage will sooner or later impel you to abandon the wasteful practice of feeding long hay.

Western farmers were the first to discover the advantages of hauling hay from the field, running it through a Papec Hay Chopper, and blowing it in a stack or barn. It enabled them to get full benefit from their legumes instead of buying so much costly grain. Chopped hay proved easier and cheaper to handle—increased the feeding value of their roughage as much as 35%.

Now, eastern dairy and stockmen are faced with the necessity of making their feed dollar stretch farther. They, too, are turning to chopped hay.

Many Advantages

You know that much of the roughage you feed out is wasted by the stock. Many feeders place this loss as high as one-third. But all the chopped hay is relished. Stock clean it up like grain. That means more milk—larger weight gains. One dairyman reports his herd produced

more milk on 32 tons of chopped hay than on 45 tons of the long.

It costs no more to put hay up chopped than it does the old-fashioned way. Three men feeding to a Papec Hay Chopper can pitch off a load in 10 to 12 minutes. No more back-breaking work in the mow. Chopped hay occupies just half the space—is less apt to spoil than long hay.

Two Machines in One

The same machine that chops your hay and blows it into the mow serves also as an efficient silage cutter. No alteration is necessary in moving the machine from one operation to the other. Alfalfa, clover, soybean and other hay, pea vines, and corn are all handled satisfactorily.

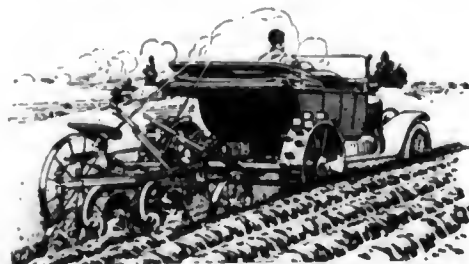
This Book Free

You'll want the facts and figures about this proven method that is rapidly revolutionizing hay feeding. We have evidence gathered from the experiences of farmers in all parts of the country, from Experiment Stations and feeding authorities. Write us for the free book, "A Better Way to Put Up Hay." Send for it now.

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STANDARD GARDEN TRACTOR
A Powerful Tractor for Small Farms.
Cultivates, Plows, and does all the work
of a man. It is the most reliable and
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Have You Seen the NEW BLUE BIRD?



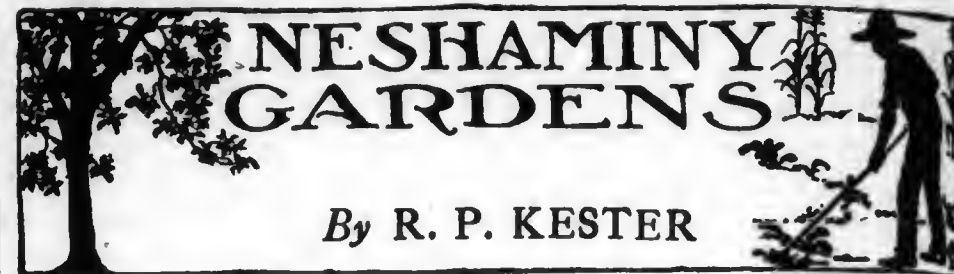
The most value for the
money of any gun on the
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Greatly improved and new features added.
Positive regulated feeding in any amount desired.
Equipped with new style fan and wire brush.
Either one or two rows.

Price \$15.00. Send check at once.
PEERLESS DUST GUN COMPANY
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POWER MOWER SHAW GARDEN TRACTOR
Never Idle. In growing season the
tractor. It also runs pumps, saws, and other
power. It is the most reliable and
economical tractor ever made. It is the
only tractor that can be used in the
household garden. It is the only tractor
that can be used in the household garden.
SHAW MFG. CO.
1111 1/2 E. 1st St., St. Paul, Minn.

Transplanted STRAWBERRY PLANTS
Best for May, June and July planting.
Just as good as the best. Also
blackberries, raspberries and other berry
plants. Also, various other plants.
Write for catalog. **FRACARIA NURSERIES**
Box 273, Putnam, N. Y.



I WRITE this on Memorial Day, the one day on which every community in the North turns instinctively to the cemetery and pays tribute to the memory of those who served their time and have been laid away. As far as the community is concerned, the tribute is to those who have served their country in time of war and have responded to the last call. But in addition to this, every family turns its attention to a private plot and lays a flower on a mound or mounds under which a friend or member of the family lies in the last sleep.

I have been recalling today the incidents of Memorial Day, or Decoration Day, as it used to be called, that have happened ever since I can remember. The first one I recall was when, as a very small boy, I marched with my Sunday School in the parade to the old cemetery on the hill. The band and flying banners gave me a thrill such as I seldom have had in my later years. The spirit of the day and occasion was not heavy upon me as I recall it, but it was a great event, and I knew today, as I watched the boys in the parade, just what was passing in their minds.

I can recall the appearance of quite a company of middle-aged men wearing blue uniforms and unique caps marching steadily and firmly behind the band. There were several of them, but as time went on this company became smaller and smaller. Finally the few survivors rode in a carriage, and as I look back in memory this evening and recall what has happened since we left that community seventeen years ago, I am saddened to believe that when the concourse wound its way up to the old cemetery today not a single uniform in blue accompanied it.

As we watched the parade here this morning one blue uniform and the accompanying unique cap passed by in a sedan. The wearer is 88 years old.

But behind him was quite a good-sized company of young men wearing khaki suits and jaunty khaki caps. They stepped along briskly, a group not much younger than the company which wore the blue when I saw them the first time. I remember hearing my grandfather tell of bands of old soldiers who had lived before my time and had passed on. And as I watched the boys today I was impressed with the fact that every generation has had its company of men who passed through the harrowing experiences of war. Always there have been men who have had to offer themselves as sacrifices for their country's defense. And I turned to the little folks by my side—grandchildren—and fervently hoped that they might not be marchers wearing a uniform in a similar parade in the generation to come, or be in graves decorated by others because of war.

There were at least two notable events which happened on Decoration Day within my memory. One was what is known as the "Johnstown flood." At least the rain began on the afternoon of that day in 1889. The commemorative exercises had been conducted as usual in the forenoon, although it was cloudy and threatening. After dinner it continued to get darker and more ominous until it began to rain about three o'clock, as I recall it. Soon after it began to rain it was pouring. I do not remember seeing rain come down as it did at that time. The air was simply filled with water. And it kept up, all the rest of the afternoon and all night

long. At our place there was a big tin container with straight sides standing in the yard. Father measured the water in it the next morning and there was over eight and one-half inches in it! Two inches of water makes a big rain in this section.

On Memorial Day in 1892 Walter L. Main's show was scheduled to set up its tents in Tyrone, Pa. It had showed at a town in the Allegheny Mountains the day before, not far from my old home. The show people were asleep in their cars as the train descended the mountain, all unconscious of their danger. For some reason the engineer was unable to back the train. It was understood that he had asked for and been refused an extra engine, fearing that one could not handle the long, heavy train down the mountain. He was right. It was soon beyond his control, and after running wild for several miles over a crooked road, finally went over the bank at a sharp curve and piled up. And such a wreck! Several of us went over to see it in the afternoon, but I am sorry to this day that I did. Men and women, and animals from monkeys to elephants were killed or injured. Several wild animals were at large, while twenty-four of the finest of Main's horses lay in a row dead. The eight men and women who were killed, the only home most of them being the big tent of the sleeping coach, were buried nearby. For years, and maybe to this day for all I know, the survivors have paid fitting tribute to their dead comrades each Memorial Day.

Friendly Talks

By
Edgar L.
Vincent

IN the bank just outside one of my cellar windows grows a low bed of lilies-of-the-valley. The morning when I went down cellar discovered that one of these beautiful plants had pushed its way under the window sill and then made a sharp turn upward, rising several inches into the light.

I wonder why the little plant takes its course that way? It is dark under the window sill. The space is narrow and no moisture to cheer the tender flower. But the more I have thought about it the more I believe it is the warmth of the cellar that invites the plant to come in. I am very sure from signs I see at the base of the longest stem that soon a blossom will appear up in the light of the window. Outside none will have shown themselves yet. It is only because the warmth of the cellar that the lily-of-the-valley will hang out its pure white bell so long before any of the rest.

Now I know men who are just like that. They keep their farms in good shape, but their returns are not so great for some reason or other. They keep on planning and thinking and working, and by and by they creep in through the dark where it is warm, and there they blossom and add to the world's beauty.

Turning toward the warmth where is that warmth? If we look for it, we shall find it in the heart of every friend, in all of the experiences of life, in home, in the love of wife and boys and girls. But we shall not find it unless we look for it and are ready and willing to be good kind and gracious ourselves.

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A Weed Made to Pay Profits

By C. D. GRAY

THE farmers in and around Parsons, Tucker county, West Virginia, have literally thousands of acres of rhododendron, azaleas and mountain laurel covering the mountain sides. From the time of the pioneer these plants have been nothing but brush and considered a curse by the farmers. To cut them off or to burn the areas on which they grew meant a bigger crop of plants, bushier and stockier than ever. There was but one recourse to get rid of them and that was the grubbing hoe well oiled with a force-fed system of elbow grease.

For years the farmers have seen commercial collectors visit Parsons and take away carloads of rhododendron, azaleas and laurel. They were glad to get rid of the plants at any price the collectors would pay. One to five cents a plant was the usual price. In addition there was the labor of collecting, which was usually done by local farmers or local labor. In the spring of 1929 it was suggested to these farmers that they could market these same plants cooperatively and build up a business for themselves. A meeting was called at Parsons of all farmers who had any one of the three plants growing in quantity on their property. A goodly number turned out and cooperative marketing was discussed with them. As usual some thought it a good idea, others said nothing; however, there were enough present who were willing to give it a trial. The result was the West Virginia Native Plant Growers' Cooperative Association. That's a lot of name.

Learned by Experience

The local men knew practically nothing about how these native plants should be collected and prepared for shipment. A superintendent with some former experience was placed in charge and organized the collecting and office work. But no one knew the trade and where to sell, so a nursery salesman from Pittsburgh was hired to sell on a commission basis.

Soon the orders began coming in and before the season closed the first Cooperative Native Plant Growers' Association ever to be organized in West Virginia had sold and delivered thirty carloads of rhododendron, azaleas and mountain laurel. Over eighteen thousand plants had been collected from the woods and hillsides and turned into cash. The growers received eight cents for every plant, large or small, which was sold. In addition they received more than twenty cents a plant for labor of collecting.

All infant industries have many difficulties to face and much to learn, and so did this group of native plant collectors. Not knowing what the trade demanded many plants were inferior in quality or method of preparation. A number of cars were rejected and others required adjustment before collection could be made. When the 1930 season opened these handicaps had been overcome. The requirements of the trade had been learned from bitter experience and the results for this year's collecting shows but one objection on quality of material and this objection was on fifty rhododendron six to eight feet tall that were not correctly staged in the order.

Only eighteen carloads were sold this year, compared to thirty for 1929; however, more than half were repeat orders from last year. Retail orders were taken this year for the first time and returned the growers handsome returns.

To insure a continuous supply and to increase the quality of plants unmerchantable material is being cut back and transplanted. This will provide plants of unquestioned value for the retail trade.

Data for this season, which have recently been compiled, show that 11,542 plants were sold for \$9,398. The cost of collecting and marketing was \$6,115.60, leaving a gross return of \$3,282.40. From this amount the West Virginia Farm Bureau Cooperative Association must be paid for distribution and collections. The remainder will go back to the growers in rebates.

The county agent of Tucker county, of which Parsons is the county-seat, states that this year's business is equivalent to sixty farmers marketing their products cooperatively from sixty droves of twenty-five sheep each. Quite a nice sum from lands which were mostly a burden from taxes levied annually.

Intermediate Credit

THE Federal Intermediate Credit Bank of Baltimore is quite different than any other institution lending money to farmers' organizations or indirectly to farmers through local lending institutions, such as banks—both state and national—agricultural credit corporations or livestock loan companies. In the first place, the 12 banks are housed with the 12 Federal Land Banks, and they have the same offices. The capital is supplied by the federal government, and the funds in addition to the capital which they loan are derived from the sale of short-term bonds or debentures to the investing public. Thus we have 12 banks without depositors, with the government owning the stock and the public supplying the funds by investing in its short-term securities.

In the seven years in which the banks have been operating, 92 farmers' cooperative marketing associations, with a membership of close to a million individuals, have borrowed directly from these banks, using warehouse receipts on staple agricultural commodities as collateral. Twelve of these associations have borrowed on wheat, 11 wool, 18 cotton, 10 tobacco, 15 canned fruits and vegetables, four alfalfa seed, three handling beans, prunes and olive oil, two each handling rice and honey, and one each broom corn, redtop seed, raisins, hay, Lima beans, evaporated milk, peanuts and other nuts, cheese, flax and barley. In addition, in the last year the Federal Farm Loan Board has agreed to loans being made on maple syrup and sugar and powdered skim milk. Loans on such



A beautiful rhododendron specimen used for foundation planting.

commodities, including renewals, have amounted to \$470,000,000 to date.

Farmers' cooperative marketing organizations have borrowed from 60 to 67 per cent of the current value of the commodities, and thus have been able to pass on to their members a liberal proportion of the value of the products at the time they have delivered them to the warehouses. Last year they loaned on 15 commodities approximately \$43,000,000.

The Federal Intermediate Credit Bank does not make loans direct to farmers. It would be a physical impossibility to do so. The Federal Land Bank of Baltimore covers not only the great state of Pennsylvania, but Maryland, Delaware, Virginia, West Virginia and through its branch bank, Porto Rico. It is, therefore, necessary for a farmer who wishes to get a loan for an agricultural purpose, namely for the production of agricultural commodities, to get in touch with his local banker or a credit corporation or livestock loan company. About 693 such local lending institutions have used the Intermediate Credit Banks since they were started; that is, they have taken the notes of farmers given for a six months period or more, the proceeds of which are to be used for an agricultural purpose, and discounted them with the Intermediate Credit Banks.

Farmers give their notes to the local institutions for all sorts of purposes. They wish to use the money to feed cattle, sheep or to purchase dairy cows, to buy boxes, barrels, crates, bags, fertilizer, pay for labor, and the thousand and one things which go into the making of crops on the farm. Lately, a good deal of credit has been extended to dairymen. Thus farmers frequently repay the local bank over a period of a year or more, agreeing to pay so much each month from their milk check. In the West, particularly, livestock loans are popular, both on cattle that are in the feed lot, on the range or held for breeding purposes.

There are two principal advantages to the farmer: (1) He is assured of sufficient credit at all times for his crop production and livestock operations, regardless of local conditions in his community affecting the supply and cost of credit, and (2) He is assured that his loan will not be called for payment until his crops and livestock are ready for market. Vulosko Vaiden, Pres., Federal Intermediate Credit Bank of Baltimore.



Rhododendron as it grows naturally in the woods.

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FROM LIFE

A MAN who advertised his well stocked farm for rent got so many inquiries that he decided to keep on farming, where he "has a steady job and can eat regularly." Many of his inquiries came from men who had sold out and gone into other business, where they had lost or spent their capital. They wanted to go back to farming and his announcement that little capital was needed attracted them.

DEAN RUTHERFORD

LET us lay a humble wreath on the grave of Dr. William John Rutherford, Dean of the College of Agriculture of the University of Saskatchewan. For a quarter of a century we have known and esteemed him as an enthusiastic but well balanced teacher and leader in agriculture. He was never gifted with a strong body, was a cripple in fact, but his earnestness and his abundant common sense overcame all physical handicaps and made him one of the most useful and influential men of his country.

STARTLING

A BOOK has appeared which says that the trouble with agriculture is not so much low prices as high costs; that there are enough farmers now to raise all the food the country needs; that efficient farmers can and do prosper; that agricultural depression will be overcome naturally if economic law is allowed to operate, and that relief enacted by law is improbable. This work is described as "startling," probably because it does not advocate some law or scheme to create prosperity regardless of conditions here and in the rest of the world. Have we become so used to the idea of artificial relief that the idea of reliance on economic law is startling?

BIG CATTLE SHOW

LANCASTER county, Pa., called by its citizens the garden spot of America, is the center of a great cattle feeding industry. Nowhere else in this broad land is soil fertility more esteemed, and consequently nowhere else is manure more highly valued. That accounts for the fact that Lancaster feeds to a finish more cattle than any other like area in this country. June 18 and 19 the tops of this year's feedyards will be assembled at the Lancaster stockyards for the annual Pat Cattle Show, the largest exhibition of commercial cattle in the East. We advise everybody interested in cattle, or in agriculture of any

kind, to go to see this Show and the country round about. And we will wager ten cents worth of good cigars that whoever does so, if not deaf, dumb and blind, will be the wiser for his trip.

THE GRAND TOUR

IF there ever was a day when farmers didn't know and didn't want to know about the farmers of other regions that day has passed. Nothing could give better evidence of the broad interests of country people than the hundreds of inquiries we receive from readers about the Pacific Northwest tour we are conducting this summer. Every day we get requests for reservations from those who welcome this opportunity to see how the other fellow lives out on the Great Plains, among the Rockies and Cascades and along the blue Pacific. We hope to be able to accommodate all who want to join us in our adventures in the Far West. However, first come, first served. We urge all who plan to go to make reservations at once.

CONFERENCE ON STABILIZATION

AMONG the features of the American Institute of Cooperation this year is a five-day conference on grain stabilization. It may take five days for "the members of the Federal Farm Board, the economists and the cooperative officials" to explain and try to justify the present plan of grain stabilization, but it should not take one day for real economists and business men to show its fallacy. Experience is even slower than a five-day conference, but ultimately it is going to show us that there is no stabilizer equal to a free and open market.

CHANGING TRANSPORTATION

FOR several years we have been required to make advance estimates of car-load shipments of agricultural products for a considerable area in four states. We have been interested in comparing these advance estimates with the actual shipments, and find in some cases a big difference between the two. In most cases this is due to a change in transportation methods, the truck carrying what the freight car used to take to market. In livestock, grain and mill feed the advance estimates have been fairly close to the actual shipments, but in perishable commodities overestimates have been the rule.

A NOTABLE DISCOVERY?

ACCORDING to press report Dr. Joseph Lignieres, a French scientist of high repute working in Argentina, has succeeded in isolating the germ of foot-and-mouth disease. If this report is correct he has done what bacteriologists have been trying in vain to do for many years. Dr. Lignieres expects to discuss the matter at the International Congress on Veterinary Medicine at London, where he will ask for a commission to study and test his discovery. The commercial value of this achievement can hardly be computed, nor can its effects on international trade be foreseen. For it is foot-and-mouth disease which keeps South American beef out of our markets and most European breeding stock out of our country.

NEW INFLUENCES

THE Russian government, which controls all business in that country, announces plans for the handling of about twice as much export tonnage as last year. Tonnage of what? Evidently not of manufactured products, for there is not enough of these for domestic use. The increase in exports now planned must be in products of Russian farms, forests and mines if in anything. The volume of agricultural exports from Russia or any country ordinarily will depend much

on the size of its crops, but today other considerations are having more influence than they had in the past. Russia will sell as much grain as possible abroad to balance its foreign trade. The same is true of several other countries which must export something for this purpose. The old rules do not wholly govern the present international trade. Financial necessity is producing policies, in both importing and exporting countries, which must have pronounced effects on our own export business. We have recently referred to two examples, Australia and Italy, but there are several others and their combined influence is not favorable to the broadening of our export trade in wheat or any grain.

OFFICIAL AND UNOFFICIAL

MAY 14 and 15 a committee of 15 apple growers, representing principal producing regions and their organizations, conferred with the Federal Farm Board at Washington. Two statements about that conference are before us. One of them is the official statement of the Board, which mentions a earlier meeting and leaves the impression that the apple growers expressed a desire for the Board to proceed toward a national apple marketing system. The other statement says that the apple growers (1) urged the Board not to impair the delicate machinery used in the present channels of trade; (2) that the growers advised the Board to take no definite steps toward a national sales agency for apples such as it has created for wool, cotton, grain, beans and livestock; (3) that the growers suggested that the Board's secretive policy is one cause of the public's apparent lack of confidence in the Board.

The Board's statement appears to be lacking in candor and designed to conceal rather than to express the facts about this conference. The unofficial statement reveals the principal facts, and there is no valid reason for suppressing them. In mentioning the Federal Farm Board's "secretive policy" did the apple growers have in mind its vast but secret operations on the grain market, carried on with millions of dollars of public funds?

RELIEF FROM RELIEF

ANOTHER farm relief measure went onto the scrap-heap last week when the United States Supreme Court unanimously decided that the Hoch-Smith joint resolution of Congress was "more in the nature of a hopeful characterization of an object deemed desirable than a rule intended to control rate-making." This resolution directed the Interstate Commerce Commission "in view of the existing depression in agriculture" to effect with the least possible delay "such lawful changes in the rate structure of the country as will promote freedom of movement by common carriers of the products of agriculture affected by that depression, including livestock, at the lowest possible rates, compatible with the maintenance of adequate transportation service." If the resolution meant anything it meant that freight rates should be made according to the current financial condition of the industry which shipped the commodity, a constantly variable and otherwise impossible basis for rate-making, and one that would destroy the fundamental purpose of the Interstate Commerce Commission, which is to see that rates are both reasonable and equitable, or not preferential. As usual the Supreme Court's decision is in line with common sense. It is also in line with the welfare of eastern farmers, who would suffer if distant producers were given highly preferential rates to eastern markets on the ground that they were not prosperous. That the established basis for rate-making is not to be upset by Congressional resolution affords some mental relief to eastern producers.

LAST week was a busy one for eastern Jersey breeders. The fourth annual spring show of the Jersey Cattle Association of New Jersey was held at Far Hills on Tuesday, June 3. Over 50 animals from the leading Jersey herds in the state were exhibited. H. M. Freer of Basking Ridge won the grand champion

Volunteer's Ursanne Buttercup. This aged cow was an easy winner over the other first place winners. Fern's Ashley Noble, a post entry yearling bull owned by P. H. B. Frelinghuysen of Twin Oaks Farm, took a grand championship ribbon. Competing against the grand champion cow were Volunteer's Daisy Chablis, first place winner of the class of cow under four years in milk and the class of cow under two years in milk and the class of cow under one year in milk and the class of cow under one year in milk and the class of cow under one year in milk.

P. H. B. Frelinghuysen won the second leg of the Merdale Challenge Cup, a cup offered to the exhibitor showing the three best animals from any herd. Once more a winner in this trophy. Twin Oaks Farm showed the best of-sire, get of Oxford Wexford, the best young herd consisting of one bull and three heifers which were under two years of age, and the best calf herd consisting of three animals under one year bred by the exhibitor. Not more than one bull could be exhibited in the calf herd class. D. Heald took first place with his herd one bull, two cows in milk, one yearling and one calf. Honors in the yearling herd class, consisting of three cows in milk, went to H. M. Freer.

On Wednesday, the day following the show at Far Hills, the Jersey men attended the 62nd Annual Meeting of the American Jersey Cattle Club which was held at the Pennsylvania Hotel in New York City. G. H. Hardenbaugh, who formerly for years was connected with the Mayo Foundation, that widely known institution which has helped to solve many pressing human disease problems, caused Bang disease. Samuel F. Cabbe of Fargo, North Dakota, was re-elected for a third year as president of the American Jersey Cattle Club. Directors elected were Congressman Elbert E. Brigham of Vermont; P. H. B. Frelinghuysen of New Jersey; Dr. W. H. Cabness of Athens, Georgia; and C. C. Dixon of Shed, Oregon. Lion's Lake, owned by Harry D. Iliff of Independence, Oregon, won a special silver trophy. This cow with 926 pounds of butterfat to credit holds the highest senior three-year-old record of all breeds. She is a winner of 10 medals of merit, two silver medals and has won a national Jersey record. As Mr. Iliff was unable to be present at the annual meeting the trophy was accepted in his behalf by John W. Coppini of Ferndale, California. Mr. Coppini is owner of the herd which holds the record for the highest average herd production tested for herd improvement Registry of the American Jersey Cattle Club. This average of 567.8 pounds of butterfat was made over a period of one year on five a day milking.

MANY of the western and southern delegates to the annual meeting were present at the 20th annual sale of imported Jerseys which took place at Morristown on Thursday. Fifty-five animals sold for a total of \$66,685, an average of \$1,212 each. This was an outstanding group of Jerseys imported by Mr. Spann and some of the individuals will be strong contenders in their class at the state and national shows this fall.

Pallas Polly's Spot, an exceptionally promising yearling animal for this fall, topped the sale when sold to Dr. W. Means of Brookfield, Mass., for \$2,200. Pallas Polly's Spot is a five-year-old cow which has been a consistent prize winner in the show ring on the Island of Jersey. Walter J. Minnins, Cold Springs Harbor, N. Y., purchased a promising show animal, May Queen's Julia, a young cow which made a show record before being brought to this country. This cow sold for \$5,300.

Many Springs Farm at New Centerville, Pa., was the heaviest buyer at the sale. They purchased

New Jersey Farm Comment

By G. W. HARRIS

ed ten animals. Paul Broaz, North Wales, was another Pennsylvania buyer.

New Jersey buyers included H. B. Cutting, Morristown; H. M. Freer, Basking Ridge; Twin Oaks Farm, Morristown; and J. M. Belcher, Far Hills.

THE opening of Burlington county's first auction market for the selling of farm produce which is to be operated by the Beverly Cooperative Growers' Association at Beverly has been postponed until about June 20. Earlier plans for opening were set for the first week in June for marketing the pea crop, but it was decided to wait until the first beans were ready for market so that the auction block would operate continuously during the rest of the season.

The Beverly auction has a decided advantage for success over some of the first auction markets

tained from records gathered throughout the United States has been checked for New Jersey conditions and practices by W. C. Krueger, the extension specialist in rural electrification at the College, and the figures were found to closely coincide.

Although the cost of electricity varies widely in different parts of the state, Mr. Krueger points out that the more current used each month the less will be the unit cost. For a monthly total of from 25 to 150 kilowatt hours, the cost for each kilowatt will vary between 20 and five cents. For a total of from 150 to 300 kilowatt hours a month the unit cost will vary between eight and four cents. And for usage in excess of 300 kilowatt hours the average unit cost will vary between four and one-half and three cents.

For the benefit of the housewife Mr. Krueger gives the following figures: "In the home, lights account for the consumption of from 15 to 50 kilowatt hours a month, with an average of 40. Water supply requires from two to ten kilowatt hours and averages three. The electric range will use about one kilowatt hour a day for each person in the family. The electric refrigerator will average 45 kilowatt hours a month throughout the year with a summer consumption of 75 kilowatt hours a month.

The washing machine uses four and one-half kilowatt hours a month, and the toaster, electric iron, percolator and waffle iron each consume about one-half a kilowatt for every hour of use. The curling iron, sewing machine, vacuum sweeper, and fan each consume from .1 to .3 of a kilowatt hour for every hour of use."

Costs for the various uses of electric power on dairy and poultry farms are also given:

"In the dairy, the milking machine uses from one and one-half to five kilowatt hours a cow for each month with an average of two and one-half kilowatts. Water supply requires from one to three and one-half kilowatt hours for each thousand gallons pumped and averages two kilowatt hours a thousand gallons. Electric water heating requires about one kilowatt hour for every two gallons of water heated to boiling. The dairy refrigerator consumes approximately one kilowatt hour for every hundred pounds of milk cooled from 95 down to 50 degrees Fahrenheit. Feed grinding takes from six to 30 kilowatt hours for each ton ground, depending mainly on the fineness of grinding.

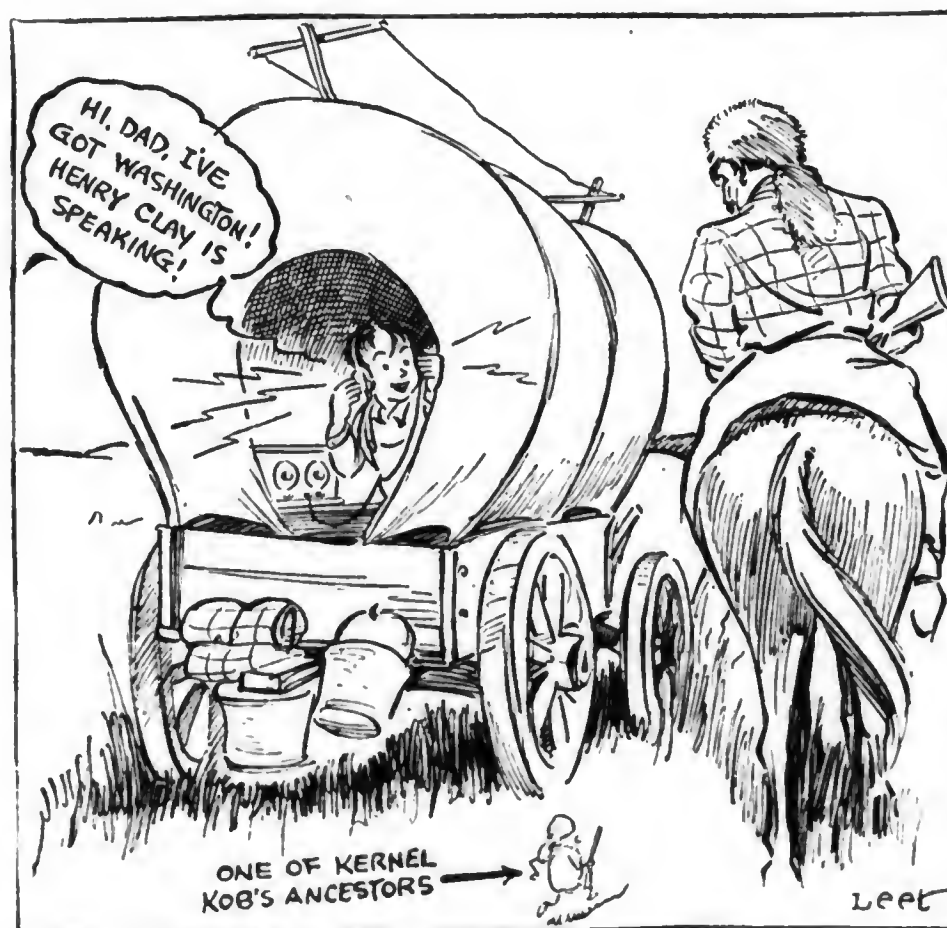
"Poultrymen will require one watt hour a hen for each hour of lighting, and between one and two kilowatt hours for every chick electrically brooded for a six to eight-week period. Electric incubating takes about one kilowatt hour for every 49 eggs incubated in the mammoth type machine, and one kilowatt hour for every two eggs incubated in the smallest size incubators.

"When motors are used for the general farm chores, wood sawing requires from one to five kilowatt hours a cord, with an average of 2.3 kilowatt hours for 12-inch cuts. Hay hoisting consumes from .1 to .65 kilowatt hours a ton with an average of .4 kilowatt hours. Concrete mixing takes from .3 to .5 kilowatt hour with the average of .4 for each cubic yard of concrete mixed. Silage cutting requires between .5 and 1.2 kilowatt hours a ton of corn cut and elevated, or an average of approximately one kilowatt hour a ton when using a five-horsepower motor."

THE New Jersey Horticultural Society will conduct a 2-day automobile tour through fruit and truck growing areas of Delaware and Maryland on July 1 and 2. Professor A. J. Farley, secretary of the Society, announces.

The itinerary includes several visits near Dover, Delaware, center of an important fruit growing district, an over-night stop at Ocean City, Maryland, and a tour through the orchard and truck areas of Berlin and Salisbury, Maryland, and Bridgeville, Delaware.

C. B. Lewis, Riverton, is committee chairman for the tour, which is the first of its kind ever to be conducted by the State Horticultural Society.



What a hoon radio would have been to early pioneers!



The tractor is used to plant and to harvest the dairyman's corn crop, while the milking machine saves time and labor on many dairy farms.

Power on the Dairy Farm

By TUDOR J. CHARLES, Jr.

GASOLINE and milk have never been considered to have much in common and a few years ago power farming and dairying would hardly have been mentioned as principals in even the briefest sort of a partnership. Today, however, many farmers who control power capable of producing thousands of dollars worth of crops also milk a herd of cows—and like it.

Corn and alfalfa are to milk production what coal and pig iron are to the steel industry, and it is logical that power for producing cheaper feed should bring dairying to many farms, just as the steel industry was first attracted to Pittsburgh.

The whole change to greater use of power, both gas engine and electrical, has benefited dairying. First, feed is produced more cheaply, as we have noticed. Where two men were required in the field the greater part of the spring and summer, now one man with a tractor outfit can handle all of the former work.

It is easy to see how this affects the work connected with the herd. The extra man can give the greater part of his time to his cows. This will either insure closer attention, or cut down the expense of hired help. The day is past when any of us must forego having a good herd of milk producers, because they interfere with summer field work, or vice versa.

Time and Labor Savers

Around the barn and barnyard changes have come. Electricity or gas engine power will do a large number of tasks which formerly took up too much time, or increased labor costs. Feed grinding and mixing is one job which has been lightened by power. When one man is busy attending to all of the duties connected with the dairy, it is a great help to have the feed mill hooked up to an elevated bin, with a fan elevator for blowing the chopped material into a bin, so that he can let the outfit run without being on hand every minute to see that the hopper is filled and the ground feed taken away.

Because the dairyman of today must compete with his time against that of a tractor in the field, it is certainly essential that he give careful attention to the results of his own labor in the barn, just as he does toward his accomplishments in the field. He cannot afford to do the work which electricity or a gas engine will do for a few cents an hour.

As the dairy cow increases in efficiency and the operator's time becomes more valuable, a greater investment can be profitably made in equipment. The owner of a cow that in seven successive lactation periods produced digestible food material equivalent to the carcasses of 47 steers could well afford to house her in comfort and feed her to capacity. Whether a man owns one good cow or a hundred he will be well repaid for good care.

In housing the herd, successful dairy farmers find that ventilation should receive first consideration. Each cow gives off about five quarts

of water in her breath every 24 hours, and unless this foul air, heavy with moisture, is carried out of the barn by means of proper ventilation, vitality of the herd is lowered and the cows are less able to resist disease.

In a poorly ventilated barn, condensation of moisture on the walls and ceiling will be noticed. Where the ceiling is not tight, in an unventilated barn, quite often the moisture will rot some of the hay. Electric power is now being used in barns to carry off foul air and at the same time control the intake of fresh air. Being independent of weather conditions for successful operation a positive control is possible in any season.

A Closer Hook-Up

Cost of installing power ventilation is around half that of the older systems and cost of operation is low—about one cent per cow each day, or between three and four dollars a year for each cow.

In practically every monthly report, testers speak of the good work that automatic drinking bowls are doing for their owners. A recent report, typical of many, tells of a man who had occasion to disconnect one drinking cup and the cow that drank from this bowl decreased her milk flow six pounds daily. When water was again supplied she increased her daily flow to where it was before.

Several recent improvements on milking machines have made them increasingly useful to dairymen who wish either to increase the size of their herd without hiring additional labor, or to give more time to other jobs. One man of whom I know justified his machine for milking his herd of eight Holstein cows three times daily by pointing out that it worked for him in the same way as his general-purpose tractor, which makes it possible for him to handle his 80-acre farm and entire herd without hired help.



Electricity finds many uses on the modern dairy farm. Here an electric motor provides the power to fill a silo.

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Indications certainly point toward a closer hook-up between power farming and dairying, or in a few years, power farming and dairying may be one more spare time, and more pasture and barn may be certain results of proper use of power equipment—both in the field and around the barns.

A Start in Soil Improvement

NOTHING gives me more pleasure than to be a boy get a start in life. A few months ago a neighbor's son, Rupert Cole, came to my house and asked to have a talk with me. The conversation had not gone far until I saw that my visit was anxious to become the owner of some land. He told me of four and one-half acres of wet land that his uncle owned that he wanted to buy.

I am always slow to advise any one to buy land until I have seen it, especially if the purchase must go in debt for it. This time soon came and the boy and I were going over this land. I was much surprised to find this meadow which in my boyhood days was dry and very productive was almost a swamp.

The first question asked by Rupert was: "Do you think this land can be tile drained?" I told him that it could be quite easily. The field was gently rolling which made drainage very easy. The second question was (and it was a very proper question), "How much will it cost?" This was not so easily answered. I saw that three and one-half acres of this meadow must be tiled. About one acre was on higher ground and did not need drainage. Rupert soon gave me to understand that if he undertook it he wanted to do it just right. Making a rough estimate of the rods of tile needed I concluded it would require 320 rods of tile, counting this at \$1.10 a rod would cost in materials \$350.

When I began to stake off the laterals I remembered that my good friend, H. B. Miller of Ohio, had recently told me that his drains were laid four feet apart, but now he was going to lay them six feet apart, but for the most part lying tile half way between them all would have been frequently told by farmers in Ohio that they could not handle their clover seed in the wheat in the spring for the reason that the ground was never dry enough. When we began to tile drain on Woodbine Farm we had as wet land as I ever saw in Ohio. We dried it so thoroughly that we could harrow the wheat in the spring, but we did it by laying tile from 20 to 40 feet apart. We laid off the laterals 30 feet apart and the reason that 320 rods of tile were laid on three and one-half acres.

In all probability Rupert's crop corn will not be very heavy, for it will take some time for the water coming to be opened up so the water can get through. Sometimes our first crop corn was very poor, but to start with this land of Rupert's is rich, and that on Woodbine was poor.

W. D. ZIMMERMAN

Milly Woodbridge's Trek to the Pacific

The Pioneers of the Peace River Valley

By C. A. Stephens

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SYNOPSIS

Two New England families, who have gone to the Peace River country in Canada to make homes, find themselves in unfortunate circumstances when the railroad, on which they had based their hopes, is not built near where they have settled. One of the families, the Mastermans, moves away, but the other, the Woodbridges, remains in the vain hope that something will happen to create business for the sawmill they have built. The son and daughter advise following the Mastermans' example and go back to civilization while they still have enough money to make the journey, but the father refuses to leave his mill. At last, when it became evident that they could not live through another winter on the Peace river, and after their money had been spent, they started to walk across the thousand miles of wilderness, and mountains that stretched between them and the Pacific Coast. With a horse, a cow and later an Indian woman who joins them they cross rivers and forests in slow but determined fashion, living largely on game and fish. The extreme exertion together with wet weather seem to make the father's cough worse until one day he has a hemorrhage of the lungs, losing considerable blood before it stops. Later he seems much better and they go on with renewed courage. One evening the Indian woman, Pinky-Blue, while fishing encounters a grizzly bear and cub. Another night while they are encamped a moose suddenly appears apparently with the intention of attacking the old horse.

assisted him to move there from the tent. The sight of the fire and the warmth, with his daughter moving about, appeared to cheer him for a time. "You are a good housekeeper, Milly," he said. "I ought to thank Heaven for you—and I do," he added, pensively. "It's better than I deserve."

A little later, when Winthrop came in, his father said, "This is a fine house, my son. I don't see how you did it with nothing but an ax and a knife to work with! I'm proud of you."

"Well, dad," said Winthrop, looking round on his handiwork, "I could build a better one next time."

Pinky-Blue, too, was delighted with their new habitation. "Snow come, no cold," she said with a laugh of easy contentment. Nonetheless, she seemed to think it devolved on her to collect a stock of food. Squaws have that instinct as winter approaches, though forethought may be a better word for it. Every morning Pinky sallied forth with her long pole to hunt ptarmigan in the high



The Cheerful Plowman

CARRIED WATER TOO LONG

WHEN dwelling on the theme of passing laws to aid a movement or promote a cause I see a proneness there to duplicate a circus day event of early date. I well remember as a lad securing sanction from my dad to carry water for that mass, the bulky elephant of class. A ticket to the show, the main event, was what I sought with very best intent, and I was told that ticket would be mine if I would do the job superb and fine.

I lugged that bucket, heavy for a lad, with all the strength and speed I had, but every painful emptied in the trough the elephant would down without a cough. I carried water till my arms were sore, and still that bulging beast was wanting more.

The show began, I heard the band at play off in that tent which seemed so far away. I heard a distant voice announcing acts, proclaiming fiction and proclaiming facts, but still I carried water to the beast whose maw demanded seven barrels at least. At last, however, turning eyes away he quit his drinking, started chewing hay. Then to the ticket man at once I rushed.

"Ah yes, my lad, you've earned it well!" he gushed. I seized the ticket, started for the show. I went as fast as I knew how to go—but listen! All the crowd was filling out. The show was over, through, beyond a doubt. I had the ticket that I sought, Oh Fate, but it was useless now, it came too late! And off it is with laws we labor for, we talk and work, it seems forevermore, and then in time those laws indeed are passed. "We have the cure!" we cry. "At last, at last!" But soon we learn the law has come too late, it cures no troubles of the present date; there was a time it would have helped, no doubt, but now the ticket's nil—the show is out! Lawmakers often make me feel, you bet, I'm lugging water at the circus yet.

J. E. T.

grass along the flats by the lake. When it was frosty, the birds would be squatting dormant under the grass. Creeping forward like a fox the squaw frequently secured three or four at a few vigorous whacks. These she dressed off later and hung-up by the legs in a cottonwood tree, ten or twelve feet from the ground, to be out of reach of prowling animals. That tree was Pinky's larder and as days passed it became laden with strange fruit—meat in long strips and quarters, as well as ptarmigan. While at work on the hut, Winthrop had seen a caribou approach the river and had shot it. About that time, too, he shot a small black bear, very fat, which was prospecting among the crags back of the lake, apparently looking for a winter den.

Pinky's tree attracted prowlers. Just before sunrise, one morning, Milly, on looking forth from the cabin door, espied two foxes gazing up into it with great earnestness. She spoke to Winthrop and he, taking his gun, killed one of them. A few days after, he also shot a young elk. The squaw removed the bear skin and the fox skin with great care, and afterwards hung them up to dry. So pure was the air of this mountain region that game would keep and hides dry with little danger of spoiling.

Ever after the middle of September they had looked for snow; but cold as the nights had turned, no snow came save a few brief squalls, during the entire month of October. As late as the tenth of the month Pinky gathered blueberries and saskatoon at a brule on the hillside back of the flats. The berries had begun to dry on the bushes; and of this semi-dried fruit they gleaned two or three bushels.

DURING October Brighteyes got her own living in the grass flats; they hitched her out to graze each day in a new place. But how to provide for her after snow came was a serious problem. If they had possessed a scythe and rake, dry grass by the ton could easily have been cut and stacked for her winter fodder. Milly even attempted to cut bundles of it with her butcher knife, but found the task a slow and tedious one. To shelter the heifer from storms and later severe weather, Winthrop built and thatched a snug little shed at the end of their cabin nearest the river, whence she could be led to water. What Brighteyes most lacked was salt. They had but a small supply, not more than was needed for their own food; a spoonful a week was all that could be allowed her. Whenever they threw out water from a kettle in which meat had been boiled, she came eagerly to lick the ground.

At this time a hard and difficult task was occupying Milly's time, taxing all her ingenuity. Their clothes were falling to tatters, requiring daily mending. Pinky's old blanket coat, indeed, was now nearly gone. With twine and a darning-needle Milly had sewed the shreds together for her, about as long as there was anything left of it that would hold stitches. Something would have to be done for all of them; and in that extremity Milly hit on the expedient of cutting up their tent and making of the strong canvas gowns for herself and the squaw and also a suit for Winthrop. She measured them as well as she could with a string, in which knots could be tied, and afterwards, having spread the tent on the ground, cut out the garments from it with her scissors. That part she accomplished with no great difficulty; the tug of war came when she set about sewing the hard, stiff fabric. Despite all care on her part, she soon broke all her smaller needles and was obliged to resort to her one stout darning-needle and ball of twine.

Somewhere during the earlier part of their journey she had lost her thimble; forcing that large darning-needle through the canvas proved arduous work for fingers! For a week or more she toiled, and was sometimes near shedding tears of anguish and vexation. There was much trying on and not a few changes, since these new, white garments were designed to be worn over their other ragged clothes.

Finally they were done and ready to be donned. Pinky put on hers first and danced in it, then went out to call Winthrop to don his. They said the gowns looked pretty well; and that Winthrop's jacket and trousers fitted as well as could be expected. Poor daddy Freeman sat up in his couch to see them in their new raiment and could but smile at the ghostly figures they made. "But it is very appropriate," he said. "Nature puts on white when winter comes. The hares, the ptarmigan and the ermine all turn white with cold weather, and up at the pole where there is always snow even the foxes, owls and bears are white."

(To be continued.)

HORTICULTURE

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Garden and Truck Crops

By GILBERT S. WATTS

YESTERDAY I spent about two hours strolling around my farm and using a simple little outfit for determining soil acidity. I began in a field that is being planted in cabbage today. In the center there is an irregular area of a soil type different from that making up the remainder of the field. This I found to be entirely too acid to produce a maximum crop of cabbage. Unquestionably the small expense of liming will be returned many fold.

In fields that include several soil types variations in lime requirements are quite likely to exist to a degree which the grower of intensive crops cannot afford to overlook. A two-dollar outfit that is so easily understood that any one can use it eliminates all reasons why a gardener should guess about this important matter. (Details will be furnished interested persons on request.)

IN April, through a misunderstanding, a very heavy drag that we have found an unexcelled implement for leveling rough plowed land was taken over a small acreage that had received its application of fertilizer. As a result the additional leveling that was accomplished moved some of the fertilizer along with the soil. Now the crops growing on what were slight bumps or elevations are distinctly inferior to the run of the field. More I am convinced that great care should be exercised to insure perfectly even applications of all fertilizers.

THE harvesting of strawberries has begun. Peas, beets, beans and other vegetables will be ready in rapid

succession. Day by day labor requirements are likely to increase. It will be a great advantage when the summer rush is at its peak if hoeings, thinnings, weeding and plantings have been previously planned through to a finish.

LATE cabbage planting time is the largest yield I ever secured was from a field planted June 3. Of course plantings made ten or twelve days later are likely to produce late-keeping heads. We began planting today, June 3rd, and shall continue intervals to July first. All the intended acreage has been plowed and worked down several weeks to insure ample reserve of moisture.

RAPID growth, watchfulness in the attainment of marketable condition and prompt harvesting are required to put out first-class radishes. The quality in this vegetable is almost exclusive as with strawberries and corn. In hot weather button radishes that are at their best one day are unfit for a discriminating market hours later.

THE extreme perishability of strawberries sometimes creates marketing difficulties for both large and small growers. Judicious use of "local reader" advertising is a potent means of increasing sales of berries right at the farm. The preservation of quality which goes with such direct selling both protects the grower from spoilage and encourages the consumer to greater use.

PATHFINDER

The Quality Tire
Within the Reach of All

"Buy it," says your own good judgment . . . "Buy it again," says your speedometer

YOUR first look at a Pathfinder tells you it's a tire to command respect on any car.

You see strength and toughness and traction written all over its husky tread—you see comfort and cushion in the generous fatness of its sidewalls.

You don't have to read the greatest name in rubber on those sidewalls, to know it's a real tire by every standard. It probably doesn't surprise you a bit to learn that the body of this tire is built of the famous cord material, Supertwist.

But you will be surprised to learn the price—because it is so low that few tires of any kind can beat it. Alert Goodyear dealers feature Pathfinder prices—they know that's a great way to win customers and friends.



GOODYEAR

THE GREATEST NAME IN RUBBER

The Goodyear Tire & Rubber Co., Inc.

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Garden and Truck Crops

By GILBERT S. WATTS

YESTERDAY I spent about two hours strolling around my farm and using a simple little outfit for determining soil acidity. I began in a field that is being planted in cabbage today. In the center there is an irregular area of a soil type different from that making up the remainder of the field. This I found to be entirely too acid to produce a maximum crop of cabbage. Unquestionably the small expense of liming will be returned many fold.

In fields that include several soil types variations in lime requirements are quite likely to exist to a degree which the grower of intensive crops cannot afford to overlook. A two-dollar outfit that is so easily understood that any one can use it eliminates all reasons why a gardener should guess about this important matter. (Details will be furnished interested persons on request.)

IN April, through a misunderstanding, a very heavy drag that we have found an unexcelled implement for leveling rough plowed land was taken over a small acreage that had received its application of fertilizer. As a result the additional leveling that was accomplished moved some of the fertilizer along with the soil. Now the crops growing on what were slight bumps or elevations are distinctly inferior to the run of the field. More I am convinced that great care should be exercised to insure perfectly even applications of all fertilizers.

THE harvesting of strawberries has begun. Peas, beets, beans and other vegetables will be ready in rapid

succession. Day by day labor requirements are likely to increase. It is a great advantage when the summer rush is at its peak if hoeings, thinnings, weedings and plantings have been previously planned through to a finish.

LATE cabbage planting time is the largest yield I ever secured was from a field planted June 1. Of course plantings made ten days later are likely to produce lower keeping heads. We began planting today, June 3rd, and shall continue intervals to July first. All the intended acreage has been plowed and weeded down several weeks to insure ample reserve of moisture.

RAPID growth, watchfulness in the attainment of market and prompt harvesting are required to put out first-class radishes. Quality in this vegetable is almost elusive as with strawberries and corn. In hot weather button radishes are at their best one day unfit for a discriminating market hours later.

THE extreme perishability of strawberries sometimes creates marketing difficulties for both large and small growers. Judicious employment of "local reader" advertising is a potent means of increasing of berries right at the farm. The preservation of quality which goes such direct selling both protects the grower from spoilage and encourages the consumer to greater use.

PATHFINDER

The Quality Tire
Within the Reach of All

"Buy it," says your own good judgment . . . "Buy it again," says your speedometer

YOUR first look at a Pathfinder tells you it's a tire to command respect on any car.

You see strength and toughness and traction written all over its husky tread—you see comfort and cushion in the generous fatness of its sidewalls.

You don't have to read the greatest name in rubber on those sidewalls, to know it's a real tire by every standard. It probably doesn't surprise you a bit to learn that the body of this tire is built of the famous cord material, Supertwist.

But you will be surprised to learn the price—because it is so low that few tires of any kind can beat it. Alert Goodyear dealers feature Pathfinder prices—they know that's a great way to win customers and friends.



GOODYEAR

THE GREATEST NAME IN RUBBER

The Goodyear Tire & Rubber Co., Inc.

DEPENDABILITY AND QUALITY IN EVERY DETAIL

THE NEW DODGE SIX

The new Dodge Six with its big roomy body is a worthy example of every fine characteristic for which Dodge cars have ever been noted. It is impressive in size and comfort, astonishing in ability, appealing in beauty. It has the safe, silent Mono-Plate Six Body and 4-wheel internal-expanding hydraulic brakes. Yet it is the low priced Six that Dodge Brothers ever have offered.

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The new Dodge Eight-in-Line establishes an entirely new measure of fineness for popular-priced eight-cylinder cars. It reflects a quality of performance, a quality of engineering, a quality of beauty and comfort that carry Dodge Brothers traditions of dependability to the highest attainment of Dodge Brothers history. At its surprisingly low prices, it obviously represents a value that is sensational.

DODGE BROTHERS SIXES AND EIGHTS

UPHOLDING EVERY TRADITION OF DODGE DEPENDABILITY

The Story of Woodbine Farm

By W. D. ZINN

(Continued from last week.)

CHAPTER XVII

IN 1904, having sold a half interest in another farm we had bought during the eighties, we decided that if we were ever to enjoy a new house the time had come to erect it. Plans were studied and the kind of house was agreed upon. During the summer a very comfortable house with ten rooms, including the pantry and bath, was erected. A basement was put under the entire building. A hot water system of heating was installed. An acetylene lighting system was also put in the house, the electric system not having been introduced at that time.

When it became necessary, on account of the failing health of my wife, for us to leave our comfortable home, a neighbor said, "What a pity it is that you ever built such a good home since you are now going to leave it." No pity at all! We lived in it seventeen years, and it was worth to us in pleasure all it cost. It is true my wife's health failed, but she might not have lived the seventeen years if we had not had the house. It was a home that others admired.

from the ground. The ram landed on the floor making a thundering noise. No sooner had he landed than he righted himself on his feet and began to run about the room. In doing this, he turned over the table on which was standing a large lamp filled with kerosene.

The two teachers were soon out of bed and into the hall in search of the rascals who had caused the trouble, but the boys were fleet-footed and were soon in their rooms apparently sound asleep.

Our room happened to adjoin the room occupied by the two teachers. One of them was soon demanding admission into it. This was granted by my room mate. During all this confusion I was sound asleep and even the questioning of the teacher as to whether I had heard the racket the sheep had made did not arouse me. It was little wonder that he suspected that I was acting the part of an opossum. His suspicions being aroused, he went on the outside to a window of our room which was hoisted to its limit where he thought he saw foot prints which had just been made.

Accused

The president was in his study room at five o'clock every morning. That morning he had an early visitor in the person of the teacher who had gained an entrance into our room. As we afterward heard, he told the president that I was the guilty one and that he could prove it.

After breakfast the president sent for me to come to his study. I obeyed the summons. I knew if we went into an investigation of the matter it would cause me to lose some time from my studies and I proposed to the president that if he would call in a notary or a justice of the peace, I would swear that I knew nothing at all about the affair. I had hoped this would put an end to the affair so far as I was concerned. But it did not. One student after another was interrogated as to my whereabouts prior to midnight.

The sheep was thrown into the room at midnight on Sunday. The questioning and cross-questioning continued until Friday morning when I was again summoned to appear in the study of the president. He told me that he had made a thorough investigation of the matter and that he was convinced that I was guilty of the crime and he further stated that he would expel me that morning from the school.

Exonerated

After leaving the study I went to the room of my life-long friend D. W. Shaw, who was also a teacher in the school. When I advised him as to what would happen in chapel that morning he said, "He will not do anything of the kind," and he went at once to the study of the president and told him that he was about to take a step that would ruin the school. Mr. Shaw knew that a contract had been signed by about 75 students agreeing to leave the school if I was expelled. He told the president of this agreement.

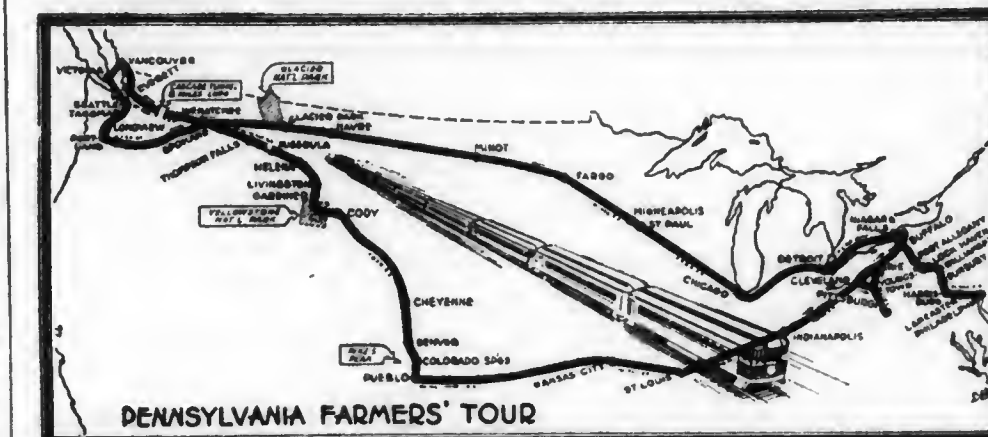
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Teachers Unpopular

These two teachers had the dislike of the student body who took pleasure in annoying them in every conceivable way. In the flock of sheep, to which reference is made above, there was a ram that weighed probably 250 pounds. A group of the boys thought it would be fine sport to catch this ram and put him into the room of these two teachers. It was midnight. Everybody on the campus was sound asleep except seven boys and a few confederates who were in their rooms nearby waiting developments.

The window through which the sheep was thrown was several feet

Your Greatest Vacation



PENNSYLVANIA FARMER Tour

JUST imagine yourself and your family thrilling to the riot of color and awe-inspiring greatness of Glacier National Park—the shining silver mountains, the Blackfeet Indian pow-wow—the wonderful 3-day stay in famous Yellowstone National Park. This is but a part of this wonderful tour.

Your friends and neighbors from right here in your own county and state are planning to go this year. Get ready to go and enjoy this trip of a lifetime with them. Tour starts July 26—back home August 10.

MAIL COUPON now for free booklet giving complete details and low cost.

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Great Northern Railway
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R.R.
Burlington
Northern Pacific

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ADDRESS _____
CITY _____ STATE _____

READ THE ADVERTISEMENTS TO KNOW WHAT IS BEST AND WHERE TO BUY

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Your crops will soon be ready for the barn—is your barn ready for your crops?

If the barn roof leaks or is not fire and lightning proof you're taking the short end of a gamble with OLD MAN WEATHER, on your whole year's work.

If the barn needs a new roof, put it on now. If you want that roof to last, make sure you use LEADCLAD. Leadclad is rustproof, fireproof, lightning proof, and outlasts two or three ordinary metal roofs.

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Ask your LEADCLAD dealer today to tell you about the new low prices on LEADCLAD SPECIAL farm roofing and LEADCLAD EXTRA HEAVY farm roofing. They're made for you.

LEADCLAD

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\$835
AND UP, F. O. B. FACTORY

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\$1095
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UPHOLDING EVERY TRADITION OF DODGE DEPENDABILITY

June 14, 1930

PENNSYLVANIA FARMER

(815) 15

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By W. D. ZINN

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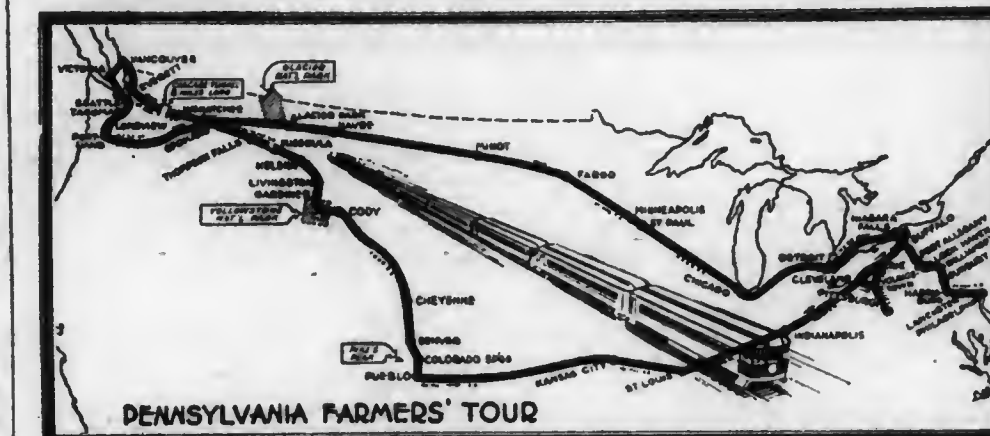
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DIRECTOR OF TOURS,
Pennsylvania Farmer,
7301 Penn. Ave.,
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Mail me at once your new free booklet on the Tour to the Pacific Northwest.

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LEADCLAD

Manufactured Solely by
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THE YOUNG PEOPLE

Thrilling Adventures

I AM going to tell you my most "Exciting Adventure."

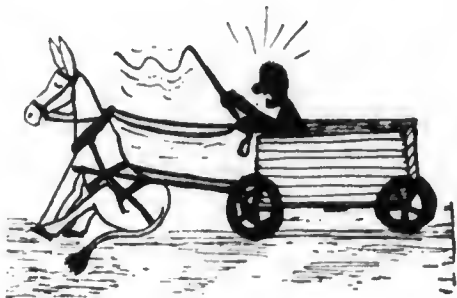
One night a bunch of us girls and boys were coming home from a party. It was a very dark night and on the way home we had to pass a cemetery. The day before one of our neighbors died and the men had dug the grave in preparation for the funeral the following day.

The crowd bet that I wouldn't go across the cemetery, pass the open grave, and come back to them on the other side. As I was never much afraid in the dark I told them I could do it.

So boldly and fearlessly I started toward the open grave, but when I was within thirty feet of the grave I heard something rattling as if stones were dropping in the grave. As I drew nearer I saw something white bobbing up and down in the open grave.

I was so frightened that at first I could not move, but at last I started and oh! how I ran back to where the others stood and breathlessly told them what I saw and heard.

They did not believe me but finally



Doris Judy, Virginia

hot and poor Bob strained at the traces, puffing heatedly. After following the road that led up hill through the woods a great distance we arrived in the clearing. But alas, there was still a very steep hill to surmount before we could reach our destination. I felt the tension as Bob tugged and pulled under his heavy load.

Before I go any further, I must tell you that at the foot of the hill was a pile of logs strewn apart from one another. These were our salvation, as you will later see. As the poor horse pulled and strained suddenly the traces snapped and my father was pulled after the horse along the ground as the frightened Bob ran away. With a breath-taking gulp of terror we rolled back down the hill in the swaying buggy. Presence of mind in that horrible instant came to the mother of Lillian and Anna. Without a thought to personal safety, she leaped from the buggy and caught hold of its careening sides. Somehow she changed its course, how, could never be told, and with a swift turn lodged its wheels in the logs and it came to a sudden halt.

Pennsylvania. Mary V. Kundra.

We Would Rather Be--

IF I were not myself I would rather be my grandmother. The reason I would rather be Grandma is because she is always smiling and never scolds when I spill my jam or step in one of her flower beds. It would be nice to encourage people with a word of kindness like Grandma can.

And then what delicious pies and cakes Grandma can make. Oh! Gee! If I was Grandma I would bake and bake pies and cakes and then I would



A Cure.—Frank Hartl, Pennsylvania



Laird Wise, Maryland

eat and eat, oh, I believe I could eat them forever, but I would divide with some of my playmates who like so well to go with me to Grandma's house.

Don't you think you would like to be her, too? Lenna Brannon. West Virginia.

IF I were any one else than myself I would rather be Thomas Edison because he is a great man.

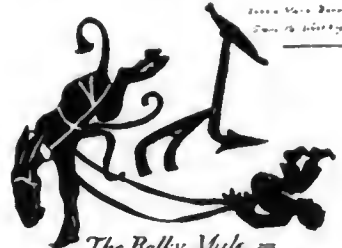
Some reasons why I would rather be Thomas Edison if not myself are: first, because I would be a great inventor; second, I would be an intelligent man; third, I would be a man who had done much for his country, and, lastly, I would have much money.

Dwight L. Wick.

Pennsylvania.

OUR ARTISTS

The pictures on this page are prize winners in our recent contest "The Balking Mule."



Bessie Marie Bonnett, West Virginia

Little Folks' Corner

A Discontented Boy

(Continued from last week.)

As they left him Mother said, "Have a good time, dear. There are lots of boys and girls around here to play with, and a nice playground right across the street. If you like it better here than at home, Auntie said you may stay and go to school all winter. Would you like that?"

Kenneth didn't answer. The tears were about to come as he realized they were leaving him. There was so much noise coming from the playground across the street he felt a little confused.

Such a long ten days! For two days he had a wonderful time on the playground. But soon he grew tired of so many around all the time, and the sliding boards and see-saws were not so much fun as he had thought. He wanted to dig in the ground and make mountains and tunnels, and he wanted to run through fields with Dickey and his dog, and he wanted to fly his kite. But his aunt had only a tiny, cement back-yard and her front porch went right onto the street. He could not sleep in peace at night for the jangle of the street cars.

Exactly at the end of ten days Kenneth's father came for him and there was a very happy reunion on the farm. Dickey danced and shouted, and Kenneth just ran and ran about the place, so glad was he to get his feet on the ground again. There were so many things he wanted to do, he couldn't do them fast enough.

Mother wisely asked no questions, but she noticed a big change in Kenneth. He no longer fussed and complained when she went to bring him

from school. He was glad to play with Dickey and his many playthings at home. Lucretia K. Mammel.



Drawn by Gertrude Wilson, New York

Color the Japanese lady and hurry her back to Little Folks' Corner. Pennsylvania Farmer, 7301 Penn Avenue, Pittsburgh, Pa.

Colored by

Address

R.F.D. Age

Now You Tell One

THE May contests brought in so many letters it will keep you busy for weeks reading the exciting adventures some of our readers had. And wait until you see the cartoons! The kicking cow and the balky mule will give you many laughs.

June is a hot month and a busy one on the farm, so we'll have something light and easy. Here they are.

1. Send a poem, story, adventure or free-hand drawing about the Fourth of July. Send something that will be suitable for the Young People's Page for our special July Fourth page. All contributions for this must be mailed before June 21st. There will be six fine prizes, including flags and a holder for your automobile.

2. Cartoon on "The Back-Seat Driver."

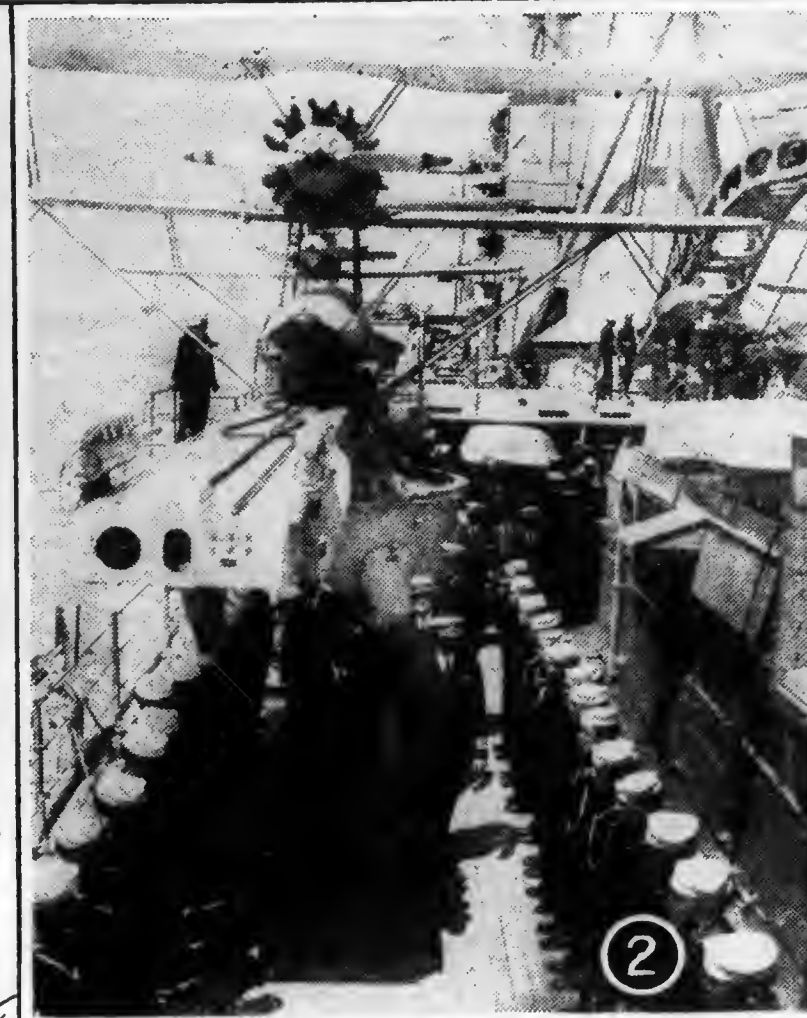
3. Prizes for the best "Original Joke."

Be sure to sign your name and address plainly. Address: Young People's Editor, Pennsylvania Farmer, 7301 Penn. Ave., Pittsburgh, Pa.

PASSING EVENTS IN PICTURES



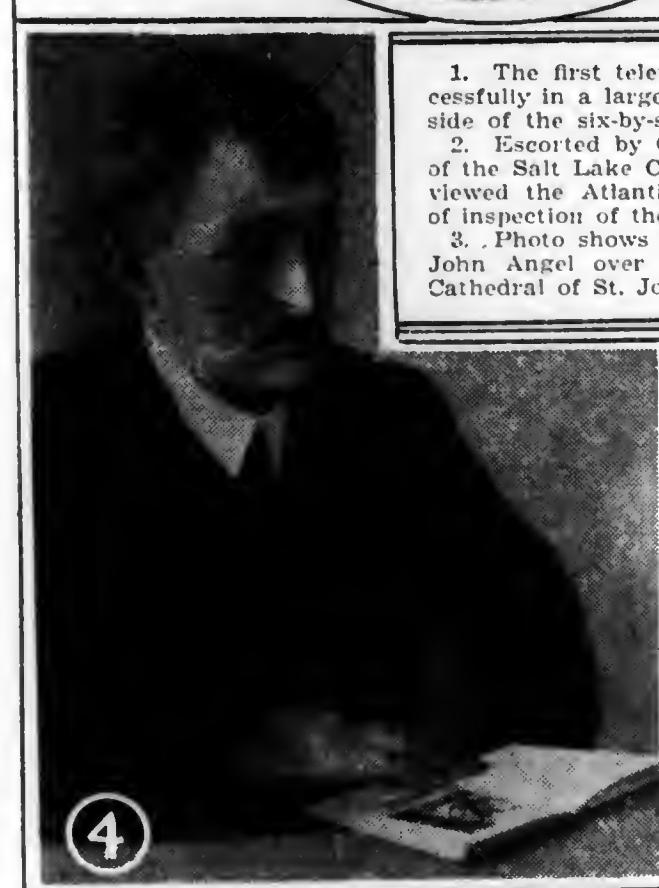
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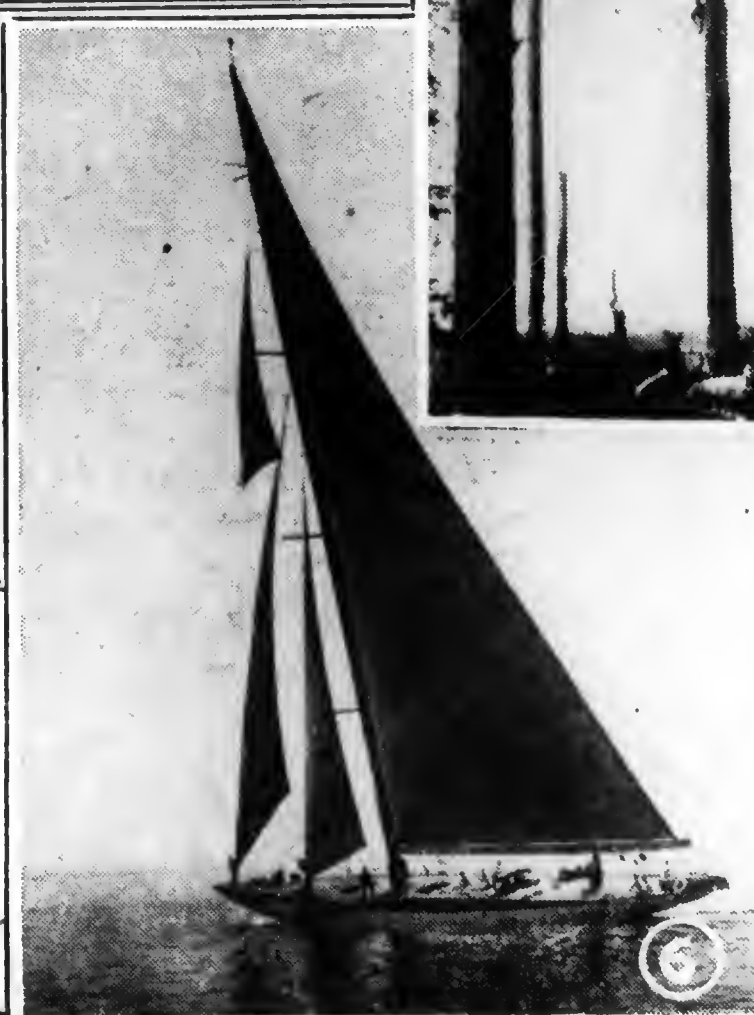
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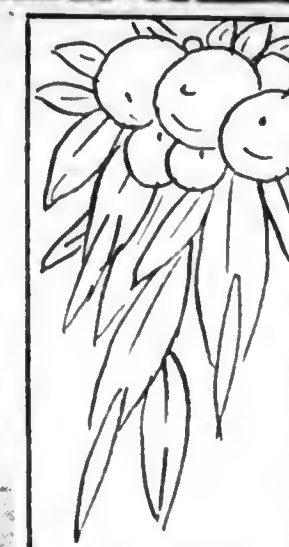
1. The first television "talkie" was recently presented successfully in a large theater at Schenectady, N. Y. On either side of the six-by-seven-foot screen are the loud speakers.

2. Escorted by Captain L. F. Hodges, commanding officer of the Salt Lake City, President Hoover and party which reviewed the Atlantic fleet off Hampton Roads, made a tour of inspection of the cruiser, which was the reviewing ship.

3. Photo shows the beautiful carving of "The Nativity" by John Angel over the Amsterdam Avenue entrance to the Cathedral of St. John the Divine, in New York.



6



4. The latest portrait study of John Masfield, the new poet laureate of Great Britain, who was received by King George at Buckingham Palace. A large crowd gathered outside to see the man, once a hobo and formerly a New York saloon porter and sailor, who had risen to such eminence in literature as to earn the highest mark of recognition from royalty.

5. The odd lookout cabin located at the top of a 100-foot fir tree near Hoquiam, Washington, was built by the forestry branch of the U. S. Indian Service. On a clear day it is possible to locate fires at a distance from 35 to 40 miles.

6. The sloop "Yankee," one of the four yachts vying to defend the America's Cup, during her first sail on the placid waters of Massachusetts Bay.

Farmer's Business Letter

COPIOUS rains have blanketed the midwest this week, and in some places the moisture was much needed. The result is a much improved agricultural situation. However, business conditions show no important gains, in fact steel has taken a sharp drop recently. Farm product markets therefore continue rather lifeless, though without further important price declines.

Farm prices are holding pretty well at the lower level now prevailing. The more expensive foods are hit hardest, notably beef, with a variety of competitive foods available at less cost. Hot weather this week has had some effect on meat consumption.

Wheat Problems

The winter wheat crop will total 544,000,000 bushels, according to the average of the reports of statisticians of standing in the grain trade. This figure compares with an official forecast of 525,000,000 bushels a month ago and a final crop last year of 578,000,000 bushels. The same reports put the spring wheat crop at 257,000,000 bushels, against 228,000,000 last year.

The carry-over of old wheat is put at 270,000,000 bushels, according to a government estimate for July 1, the end of the present crop season. This is about one-third of last season's production, and is said to be the largest carry-over on record. The first of the new wheat will soon be on the way to market. Another factor in the situation is the high wheat tariff being levied by European countries.

A compilation by Nat Murray, Chicago statistician, shows that all foreign import duties reduced to the wheat equivalent would have made a total tariff of \$16,000,000 in 1924, and \$182,000,000 in the 1930 basis. Nearly every European country has raised a duty wall against grain imports.

The Canadian pool is reported as having moved considerable export wheat lately, at prices said to be well under quotations in this country.

That the Farm Board's grain agencies will be confronted by difficult problems in connection with this year's wheat crop is readily recognized. However, George S. Milnor, president of the Grain Stabilization Corporation, has given out a statement assuring millers and farmers that while no attempt would be made by the government to "peg" or fix prices of grain, the stabilization corporation was ready to insure what it regarded as fair prices.

Grain prices showed practically no net change for the week. The situation is such that neither side of the market is able to gain the ascendancy, due mainly to Farm Board influences.

Hogs Show Strength

The run of hogs was moderate this week—550,000 at eleven points, against 504,000 last week, 570,000 a year ago and 657,000 two years ago. The market showed strength all week, and the average price for the week was \$10.20, a gain of a dime over last week and only 45 cents under a year ago.

Average weight of hogs at 237 pounds compared with a five-year average of 242 pounds for the same week. Feeling in packing circles seems to be veering to the strong side of the market, based on supply expectations. This showed in the futures market

where another gain was recorded. Light hogs for July delivery sold at \$10.50 and for September at \$10.40. Medium weights sold at \$10.40 for September delivery. These prices are 5 to 15 cents higher than last week. The Live Stock Exchange announced this week that in response to numerous inquiries regarding December delivery trading in hogs for December delivery would begin June 28. Already orders to buy or sell December hogs are in the hands of brokers and "all indications point to a large volume of business."

There is more than the usual interest in the size of this year's "June run" of hogs. It hasn't started out very auspiciously. The opening week of the month shows only about 550,000 hogs at eleven points, the smallest June opening in more than ten years.

The sow run isn't as yet under way. It is late. When it starts it will make some difference in receipts.

The report of the spring pig crop will be out shortly, and it is being awaited with interest.

Break in Lambs

Receipts of sheep and lambs were large, and there was a price setback following several weeks of gains. Lambs were off 75c to \$1.50, and sheep even more. Top lambs brought \$13.50 early in the week, this price for spring lambs, the only lambs now quoted. Last year's lambs are now quoted

as yearlings, the change in the quotations being made this week.

Chicago had 72,500 sheep and lambs this week, against only 53,000 last week and 59,000 the same week last year. Southern lambs made up a good share of the supply, there being 16,000 of them on the market against only 1,500 last week, while the California run totaled only 15,000 against 20,000 last week. The first lambs from Washington and Idaho were also here.

It promises to be a big season for lambs, the southern run to date being the largest in several years, and western states promise big shipments from now on. All of which is not encouraging from the standpoint of future prices.

The usual summer break hit the aged sheep market this week, ewe prices at the close being lowest of the year.

Cattle Lower

The cattle market opened in rather promising fashion this week, but took a turn for the worse almost at once and closed 50 to 75 cents lower. Yet in view of the run it didn't do so badly, for the supply here totaled 51,000 head, 8,000 more than last week and the largest week's supply so far this year. Furthermore, the increase was made up largely of steer beef of some quality, and the greatest decline in the market was on the top end.

Receipts of cattle so far this year at leading points total approximately the same as last year, but are well below other recent years.

The market has been feeling the effect of business depression, yet the

price level is still relatively high, as compared to general commodity prices, and some other farm products as well.

Inquiries are coming into the market in regard to probable feeder prices for the coming season. The prospect is for a supply about in line with last year, but demand will depend on how business conditions develop, and the supply and price of corn and rough feeds this season. The feeling now among producers is that feeder prices must be reasonably low or they won't be interested.

Northwest Milk Co-op.

W. F. Schilling, dairy member of the Federal Farm Board, announces that a new co-operative setup for dairymen of South Dakota, Iowa, Kansas, Nebraska, Missouri and Oklahoma would be organized as a central marketing unit.

Mr. Schilling said the new setup is expected to be organized this month. It will maintain sales agencies in Chicago and New York, especially for distribution of butter. One conference has already been held with dairymen of the states named and another is scheduled for this month.

Chicago, June 7, 1930. Watson

First Penn's Strawberries

THE first Pennsylvania strawberries of the season were offered on the Philadelphia market last week and met with a good demand at \$4.50/6.50 per 32-quart crate. Receipts from other nearby sections were light and prices generally averaged higher. New Jersey berries brought \$5.00/6.50 a crate with exceptional lots as high as \$8. Poor stock sold as low as \$3.50, according to the Pennsylvania and U. S. Market News Service.

Receipts of strawberries from New Jersey, Pennsylvania and from the Eastern Shore sections totaled approximately 3,000 crates on June 7. The market was firm for good stock and the demand was fairly active. Pennsylvania berries were generally of good quality and sold at \$4.50/6.50 per 32-quart crate with a few exceptional lots higher. New Jersey berries sold within the same range, according to the Pennsylvania and U. S. Market News Service.

Asparagus Steady

The asparagus market was about steady but the demand was only moderate. Pennsylvania and New Jersey very large green stock ranged from \$2.50/2.75 with a few fancy lots higher. Large stock brought \$1.75/2.25, medium \$1.25/1.75 and small 75c/1.25.

Receipts of dressed poultry in New York from nearby sections were light but there was a fairly active demand for broilers. Prices of broilers ranged from \$3.50/4.50 a pound while ducks brought \$1.90/2.00.

The potato season is working up the coast and it will be only a comparatively short time before the New Jersey season begins. At present North Carolina is the chief source of supply with daily shipments running as high as 400 cars during the past week. Reports from this state indicate that yields were cut seriously in most counties by prolonged drought but that the quality and size of the potatoes is good. A few less than carload lots of Norfolk section potatoes were received in Philadelphia this week indicating that the season there will soon open. It looks as though there will be less overlapping of seasons in the various producing sections than in some years of the past and this will be a boon to the growers.

Peas Hold Steady

Peas were steady at \$1.25/1.50 per bushel and there were some lots of fancy stock higher. Radishes met a moderate demand at 85c/1.25 per bushel while parsley sold at \$1. The lettuce market continued dull and nearby Big Boston sold at 50c/75c a crate. Eastern Shore cabbage brought \$1.15/1.75 a barrel.

Nearby sour cherries of only fair quality brought 75c a pound while raspberries brought 18c/20c with a few fancy lots of Maryland stock bringing 25c. Apples sold slowly and nearby Rimes ranged from \$2.50/3.50 per bushel.

Philadelphia Produce Review

THE Philadelphia egg market during the past week was generally steady with no outstanding features. The price range was narrow with limited business reported on the general run of stock. Eggs of good quality commanded premiums and buyers were willing to purchase fancy goods at a premium. However, many of the eggs offered were of ordinary quality and sold at low prices.

The trend of the market is indefinite; some dealers expect higher prices, while others anticipate lower prices due to industrial depression. The demand for fancy white eggs was satisfactory with stock fairly well cleared.

According to the statistics issued by the Department of Agriculture, the storage movement of the four principal egg producing states has not been running as briskly as in previous years, due to a falling off in production in many sections. Western advances indicate lighter collections with quality irregular due to the warm weather.

The New York egg market was steady with very little fluctuation in prices. Late in the week nearby hen white eggs were quoted at 24c a dozen, nearby browns at 24c a dozen and mixed colors at 20c/27c. Pacific Coast white eggs ranged from 25c/34c.

Butter Unsettled
The butter markets were unsettled in all sections of the country. Price quotations on the Eastern markets but were about one-half cent higher at the close. The statistical position of the market is a weakening factor. Available figures on receipts and storage movement show considerably heavier supplies than during the same period last year.

When to Cut Hay
To make the best quality hay all clover and grass crops should be cut at or just before the full bloom period. Comparative tests made at our experiment stations show that the digestible protein in timothy shrinks 40 per cent from the blooming stage to the mature stage; in clover 41 per cent and in alfalfa 45 per cent. In addition to a loss of digestible protein, the crop also loses almost as much in palatability.

A Nice Sum

A NICE sum of money is \$157,700,000. That is what the 300,000 farmers in this state took in last year from the sale of milk, eggs, wool and honey, according to state statistics. The sum is almost \$2,000,000 more than was taken for the same products in 1928. Milk was the largest item, being \$113,000,000. Eggs came second, returning \$43,000,000.

RAY AND STRAW

Pittsburgh quotations.—No. 1 timothy, \$2.20; No. 2, \$2.10; No. 3, \$2.00. No. 2 timothy, \$2.10; No. 1 light clover mixed, \$2.10; No. 1 clover, \$1.85. Sound dry clean oat straw, \$1.30; sound dry clean wheat straw, \$1.30.

FEED MARKET

The following quotations are for transit and nearby shipment June 6, according to the U. S. Bureau of Agriculture. Economies. They show the approximate cost of feed per ton (all in 100-lb. sacks) and grain per bushel in carlots arrival at Philadelphia and Scranton rail points: No. 30, \$3.50/3.50; standard middlings, \$3.50; flour middlings, \$3.50; cottonseed meal, \$4.50; No. 1 white corn, \$2.50; No. 2 white corn, \$2.40; No. 1 yellow corn, \$2.30; No. 2 yellow corn, \$2.20.

WOOL MARKET

Boston, June 7.—The activity in the wool market has been maintained at a rate fully up to last week, says the U. S. Department

of Agriculture Market News Service. While some houses did not move quite as much wool as during the previous week, others sold a considerably heavier volume. Prices on domestic wools were steady to very firm. The most active grades were 64s and 66s, 68s, 70s, 72s, 74s, 76s, 78s, 80s, 82s, 84s, 86s, 88s, 90s, 92s, 94s, 96s, 98s, 100s, 102s, 104s, 106s, 108s, 110s, 112s, 114s, 116s, 118s, 120s, 122s, 124s, 126s, 128s, 130s, 132s, 134s, 136s, 138s, 140s, 142s, 144s, 146s, 148s, 150s, 152s, 154s, 156s, 158s, 160s, 162s, 164s, 166s, 168s, 170s, 172s, 174s, 176s, 178s, 180s, 182s, 184s, 186s, 188s, 190s, 192s, 194s, 196s, 198s, 200s, 202s, 204s, 206s, 208s, 210s, 212s, 214s, 216s, 218s, 220s, 222s, 224s, 226s, 228s, 230s, 232s, 234s, 236s, 238s, 240s, 242s, 244s, 246s, 248s, 250s, 252s, 254s, 256s, 258s, 260s, 262s, 264s, 266s, 268s, 270s, 272s, 274s, 276s, 278s, 280s, 282s, 284s, 286s, 288s, 290s, 292s, 294s, 296s, 298s, 300s, 302s, 304s, 306s, 308s, 310s, 312s, 314s, 316s, 318s, 320s, 322s, 324s, 326s, 328s, 330s, 332s, 334s, 336s, 338s, 340s, 342s, 344s, 346s, 348s, 350s, 352s, 354s, 356s, 358s, 360s, 362s, 364s, 366s, 368s, 370s, 372s, 374s, 376s, 378s, 380s, 382s, 384s, 386s, 388s, 390s, 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1906s, 1908s, 1910s, 1912s, 1914s, 1916s, 1918s, 1920s, 1922s, 1924s, 1926s, 1928s, 1930s, 1932s, 1934s, 1936s, 1938s, 1940s, 1942s, 1944s, 1946s, 1948s, 1950s, 1952s, 1954s, 1956s, 1958s, 1960s, 1962s, 1964s, 1966s, 1968s, 1970s, 1972s, 1974s, 1976s, 1978s, 1980s, 1982s, 1984s, 1986s, 1988s, 1990s, 1992s, 1994s, 1996s, 1998s, 2000s, 2002s, 2004s, 2006s, 2008s, 2010s, 2012s, 2014s, 2016s, 2018s, 2020s, 2022s, 2024s, 2026s, 2028s, 2030s, 2032s, 2034s, 2036s, 2038s, 2040s, 2042s, 2044s, 2046s, 2048s, 2050s, 2052s, 2054s, 2056s, 2058s, 2060s, 2062s, 2064s, 2066s, 2068s, 2070s, 2072s, 2074s, 2076s, 2078s, 2080s, 2082s, 2084s, 2086s, 2088s, 2090s, 2092s, 2094s, 2096s, 2098s, 2100s, 2102s, 2104s, 2106s, 2108s, 2110s, 2112s, 2114s, 2116s, 2118s, 2120s, 2122s, 2124s, 2126s, 2128s, 2130s, 2132s, 2134s, 2136s, 2138s, 2140s, 2142s, 2144s, 2146s, 2148s, 2150s, 2152s, 2154s, 2156s,



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TEN REGISTERED BERKSHIRE PIGS and one boar, ready to mount, \$12.00 each. W. F. McFARRAN, Farmdale, Pa.

Feeding Pigs, 15 to 50 lbs., \$4.50 to \$8.00 according to size. Truck delivery on large lots. Monthly payment plan. Stanley Short, Cheswold, Del.

BIG TYPE CHESTER WHITE PIGS, 10 weeks old, by a State Fair First Prize Boar. Catalogue, H. E. BENAN & SON, Thurman, Ohio.

QUALITY CHESTER WHITE, Oct. 1, 1935, gilts, bred for fall litters. Shipped P.O.D. on approval. A. H. Crownever, Mt. Sterling, Ohio.

Chester White Pigs Properly mated. Write your wants. R. L. MUNCE, Canonsburg, Pa.

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MILKING SHORTHORN BULL AND HEIFER Calves for sale, 2 to 7 months old, from good breeding dams. Accredited herd. LEE, R. SCOTT & SONS, Burgettstown, Pa.

D. S. POLLED HEREFORDS.—A fine selection. Cows, heifers, bulls. Come or write. CHAS. D. OILL, Millersport, Ohio.

BUCK & DOE RUN VALLEY FARMS Hereford Cattle—Poland China Hogs—Hampshire Pigs—Draft Horses. THE SAINT AMOUR COMPANY, Mortonsville, Penna.

MILKING SHORTHORN Bull calves, 2 to 6 months old. Also a few cows, blood Federal accredited. Burgeon & McKelvey, Kittanning, Pa.

Angus Cattle at reasonable prices. Write BAYARD BROS., Waynesburg, Pa.

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REGISTERED BELGIAN MARE—2 yrs. old, weight one ton, bred to Laramie H. Also her stallion colt, eleven months old, sired by Laramie H. The six-year-old blue roan show gelding, weight 2,300 lbs., also noted show pig. All good workers. SWEET BRIAR FARMS, J. E. Patterson, Supt., Chestersland, Ohio.

DAIRY CATTLE

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JUNE 26th, 1936 at 10 A. M.

at Farm, W. S. Billick, Elizabeth, Pa.

35 PURE-BRED GUERNSEY 35 COWS AND HEIFERS, 4 BULLS.

FULLY ACCREDITED HERDS Case Thresher, Eagle Tractor, Union Leader Sprayer, 12 complete Jamesway Silos, Pull line farm equipment, almost new, Purebred Tom Hatton breeding hogs, two steel Jacob's ladders.

A. P. Warner, J. W. McKinnis, F. H. Hayden have consigned a few of above consignees.

W. S. BILLICK, Owner, Elizabeth, Pa. FRED W. ANDREWS, Auctioneer

5 JERSEY BULL CALVES aged from 1 to 3 months. Excellent type. Solid color. Straight backs, long and deep bodied. All out of Register of Merit dams and sired by good grandsons of old Shill's Damages. Priced at \$75.00 each for quick sale. Federal Accredited Herd and blood tested. Highland Farms, Greensburg, Pa.

REG. JERSEY BULLS, ready for service. Bull calves, also heifers. Accredited Herd. C. P. & M. W. BIGHAM, Gettysburg, Pa.

HOLSTEIN-FRIESIAN, 10 pure, old bull, A. W. Hetherington, Dan's C. A. 284.0 F. 12.748 M. blood individual, Heifer, 6 mos. old, A. W. Hetherington, J. P. C. KING, R. 2, Summerville, Pa.

CAN FURNISH high grade Holstein cows and heifers in various lots. T. B. tested. Olmar & Briggeld, West Concord, Minn.

REGISTERED GUERNSEY BULL FOR SALE. T. B. tested, 3 1/2 years old. HENRY G. BECHTEL, R. 1, Spring City, Pa.

ONE EXTRA FINE REGISTERED GUERNSEY bull calf, born May 8, JOSEPH E. WUFFLEY, Bell Phone 28-J, Avonmore, Pa.

PURE-BRED REGISTERED AYRSHIRE BULL, 12 months old. Inquire or write. FRANK VAUTER, Uniondale, Pa.

AYRSHIRE CATTLE of the best blood lines. Herd T. B. Accredited. Animals of both sex and all ages. Geo. B. McConnell, Wellington, Ohio.

Farm & Dairy

By L. W. LIGHTY

A NUMBER of years' observations at the Missouri Experiment Station proved that clover roots are great soil conservers. In the corn area having no clover roots two and a half times as much soil was lost by washing as on the land having the clover roots.

Those who have given consideration to this loss of soil by erosion while under cultivation have in many cases dropped the old plan of farming by the fields and plant the hoed crops in comparatively narrow belts with belts of sod adjacent. In this way the amount of water collected is comparatively small and the soil that is picked up by the water is largely deposited on the sod strips.

This plan of soil conservation interferes with the rectangular fields and the boasting of straight furrows and rows, because the tilling must of necessity be done to conform in a measure with the slope and contour of the land. But after learning that on sloping land which washes easily we lose much more soil fertility by erosion some seasons than the crops take up we do well to abandon some of our old notions of rectangular areas.

Observations by experts have determined that on a gentle slope with a silt loam under continuous cropping with no sod seven inches of soil would be carried from the surface in twenty-six years. This may give us a comparative idea of the loss of soil and its fertility by surface erosion. Then we must remember it is the fine particles that are carried away which particles furnish the plant food. Pebbles and small stones remain, but from them we get little plant food.

We Work in Circles

THE great philosopher Emerson wrote a delightfully instructive essay on circles. Our work on the farm corresponds with his philosophizing. A practical farmer visited me lately to counsel on some farm building. He said: "I seem to be running around in a ring all the time in my farm work and management. All the crops I grow seem to depend in a great measure on my clover crop. If I have a large clover crop I am quite sure of a good crop of corn and wheat as well as potatoes. Also if my last crop of clover was good it is much easier to get the following clover crop to thrive. Therefore, I try to learn the wants and needs of clover and supply them and I find my circle of good crops is complete."

"I drained the wet spots, manured the soggy and clayey places heavily and applied lime over the entire area. I secured seed that was adapted and otherwise the best procurable and for several years I have inoculated the seed before sowing. I have had no clover failure in four years and in fact my clover has been very good since I have left nothing undone that seemed necessary. I not only grow more clover but I feel sure it is better clover, because I get better results. Going around this circle seems like a spiral, every time around it is a little larger."

This farmer has worked out his soil production problem in a most successful manner. He did not say, but I add that the man who fails to consider and grow clover also travels in a spiral, but the circles gradually become smaller until the vanishing point is reached.

DAIRY NOTES

THE good cow is a lover of the quiet life. Her fear complexes should be considered and not excited. Contentment and comfort must be her constant companions. She should have the still waters and the green pastures.

If she is not a good cow she is not a fit associate for a man with a family, for she is a despoiler of the innocent, a wastrel, an extravagance. W. F. McFarran



Most Effective STOCK SPRAY Ever Developed

Tanglefoot Stock Spray is a powerful double-duty insecticide. It kills, repels and remains effective for hours. Here is quality without equal. No other spray compares with it. There is not a single objectionable feature. No insect can survive its deadly mist. Spray morning and night to keep farm animals free from flies in field and barn all the time. Tanglefoot never taints milk. Continued use will neither burn or blister the hide, nor stain, discolor or gum the hair. Increased milk production pays for Tanglefoot Stock Spray. Try this remarkable product. Prove by actual experience why important dairymen everywhere use it exclusively. Here is a product worth demanding. Satisfaction is guaranteed. The leading merchant in your community has Tanglefoot Stock Spray or can get it for you.

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Buy Houses, Cullers, Brooder Houses

Stalls, Stanchions, Crisps

Hay Houses, Cullers, Brooder Houses

Farm Engineering

Which is the best silo to erect, wood, concrete or concrete stave? Which is best, concrete bottom or dirt floor? Paul Scott.

WOOD silos, when made of two-inch white pine or red wood staves, last for a long time. They are fairly cheap and give good service both in preserving the silage and in preventing freezing. They will loosen up by shrinkage during the summer, so the bands which hold the staves must be kept tight.

The concrete silo is very good. The forms are rather expensive to build unless several people use the forms, either buying them second-hand or renting them.

In making the concrete for silo construction only about seven gallons of water to the sack of cement should be used. If too much water is used, making a sloppy concrete, it will be porous when it sets and will have a tendency to soak up the juice from the silage.

I am inclined to believe that the concrete stave silo is a very good one comparatively cheap to erect and if the slabs are made of good concrete, they give fine satisfaction.

A good many people use dirt floors in their silos if the subsoil into which the foundation is dug is clay. If sand, I think a concrete floor would be advisable.

R. U. B.

The Corn Combine

A NEWCOMER among the efficient modern farm machines was given its first demonstration in Kansas early last month. Traveling down damp rows of corn left standing since last year it picked off the ears, shelled and cleaned the grain, and shredded the fodder which was left on the ground to be plowed under.

A committee appointed to keep tabs on the demonstration reported that four and one-half acres of standing corn was harvested in three hours. The average cost was \$1.18 an acre, slightly less than three cents a bushel. The average speed of the tractor was 2.4 miles per hour. It is believed the machine will make an even better showing in dry corn where the yield is higher.

Stippling Wall Papers

An interested in improving the walls of a room and would like to know what sort of paint could be used to sponge stipple wall paper to brighten it up. Would not ordinary paint make the paper look oily, or cause it to loosen from the walls? Would be glad to receive any information on this subject.

H. E. W.

WHEN wall paper is sponge stippled or scumbled, it should first be brushed off and any loose places fastened down, then given two coats of rather thin glue size, letting each coat dry before the next is put on. It is then given two coats of flat wall paint. The stipple coat is then put on of somewhat different color and stippled or scumbled by means of a flat sponge or a wad of soft paper.

In general it will not pay to put this much labor and material on wall paper which is never safe against cracking or peeling off. It will be far better to remove the wall paper and smooth up the wall, then paint and tiple directly on the plaster and thus have walls which are much more lasting and secure than paper and which can at any time be freshened up by cleaning with soft water and a mild soap.

I. W. Dickerson.

Calclimined Walls

WHERE walls have been calclimined several times and there is a tendency for it to peel, under these conditions the only wise thing is to remove all of the calclimine down to the bare walls. This is usually done by soaking with water, scraping with a broad paper hanger's knife and then washing again and finally smoothing with a piece of sand paper. The wall should then be sized and painted in the usual way.

I. W. D.

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Farm homes that are castles

You can tell the farm home which is a castle in the proper sense of the word. Not a mansion to be sure. But always imposing, impressive. Large, sunshiny rooms in the midst of broad acres and open fields. Expanse of ground, fresh country air. Neat trimmings and landscaping which add dignity to the house.

You know before you enter that the owner has a certain soundness of thinking usually called business sense. Always on guard against waste. And usually the housewife tells you that thrift—care and scrutiny at the time of buying—bought those extra-which make the inside seem so complete. For, she adds, they read the advertisements.

Reading the advertisements tells you what to buy and how to get most value for every penny spent. A dozen needs arise on your farm every week. Knowing which machine which tools, which automobile, which suite of furniture, which cooking fuel is the best for the price you pay, will save money otherwise thrown away. Perhaps as little as twenty-five cents a week—perhaps a hundred dollars a single purchase.

You can beautify your home—make a real castle out of it—with money saved in buying advertised goods. When you buy merchandise advertised by name, you get purchase value in the greatest degree from every dollar spent.

It pays to read advertising



This Electric Range on a farm in Montgomery County cuts down kitchen work for the busy farm woman.

FARM WOMEN ... say they like the ELECTRIC RANGE

THERE are thousands of electric ranges cooking their three meals per day in the homes of Pennsylvania. Farm women in many parts of the state tell us they like the electric range. No two give the same reasons but the following lists the main features that appeal to them.

Making "Good Luck" Certain

Any one who has been so fortunate as to sit in for a real farm dinner knows that the farm woman has brought the art of cooking to perfection. They say, however, that they have had "good luck." What this really means is that they have guessed the mood and temperature of their stove correctly. With the electric range, where the oven has an automatic control which can be set for any temperature desired, guessing becomes a certainty and "good luck" is sure to follow. The perfection of the meal cooked is the farm woman's desire and the electric range meets this requirement. The oven of the electric range cooks meats with practically no shrinkage since there is actually no combustion taking place as with the usual cooking fuel.

Cleanliness

Electricity does not burn to make heat. It is heat itself... odorless and smokeless. For this reason there is no smoking of the pans and kettles leading to that most dismal after-dinner job of scouring and cleaning. There is no smudging of the walls, woodwork and decorations of the kitchen or other parts of the house. The wood box or fuel bucket can be banished from the corner of the kitchen. The dirty job of taking out the ashes and cleaning up the floor thereafter is ended. The better the housekeeper the more she appreciates the electric range!

Labor Saving and Convenience

The farm women, as a class, work the longest hours of any group of persons. Electricity functioning through the electric range, bringing fire by wire, will save from one-half hour to an hour of labor per day, with no wood or fuel to carry, or fire to keep up, or ashes to clean out; no floors to be mopped as a result; no smoky pans to be scoured; and through greater speed of the cooking units almost instantaneous heat instead of having to wait. Where one is away from home much, the time clock is a great convenience. This device permits the placing of the meal in the oven and setting the clock for the meal to start cooking at the desired time. Thus the entire family can go to church and come home and find their meal ready for them at the desired hour.

Cool Kitchen

Since no air is required for electricity to heat, ovens are tightly insulated, thus giving off very little heat in the kitchen and making full use of the heat in the oven. This leaves the kitchen practically as cool as any other

room in the house. In fact the electric refrigerator may sit in the kitchen near the electric range, if desired.

Safety

Since there is no combustion there are no flaming fuels about the stove, nothing to blow out, no fuel-burning odors, no smoking from poor draft. The electric range is silent and simple to operate. This safety feature is much appreciated in cases where there are small children in the family.

Attractiveness

While the electric range can be secured in black finish, the cost is not a great deal more for white enamel, which most housewives prefer. This requires much less work to keep clean than has been spent in applying stove polish in the past. With the stove itself an attractive unit, without fumes or dirt, the kitchen may readily be kept so as to please the most fastidious housekeeper.

Economy

No other combination of cooking appliance and fuel can offer all the features of the electric range at as low a cost. Rate schedules are so designed that the cost of electricity for cooking will average about 1c per person per meal for current or about \$1.50 per month for a family of five. It will vary above and below this with the size of the family and the amount of cooking that is done. Farm women say that it has cost them about this sum for the purchase of other summer fuel. When all the features of the electric range are taken into account, they consider it economical as well as being the most perfect method of cooking. Ask the women who have the electric range if they would give it up. We believe they are convinced that

Your electric company maintains a staff of engineers and home service workers for the purpose of perfecting and demonstrating the application of electricity to the work of the farm and home in the form of light, heat and power. No charge is made for this service. We shall be glad to have you call at your local office for any information and assistance.

"IT COSTS MORE TO DO WITHOUT ELECTRICITY THAN TO USE IT"

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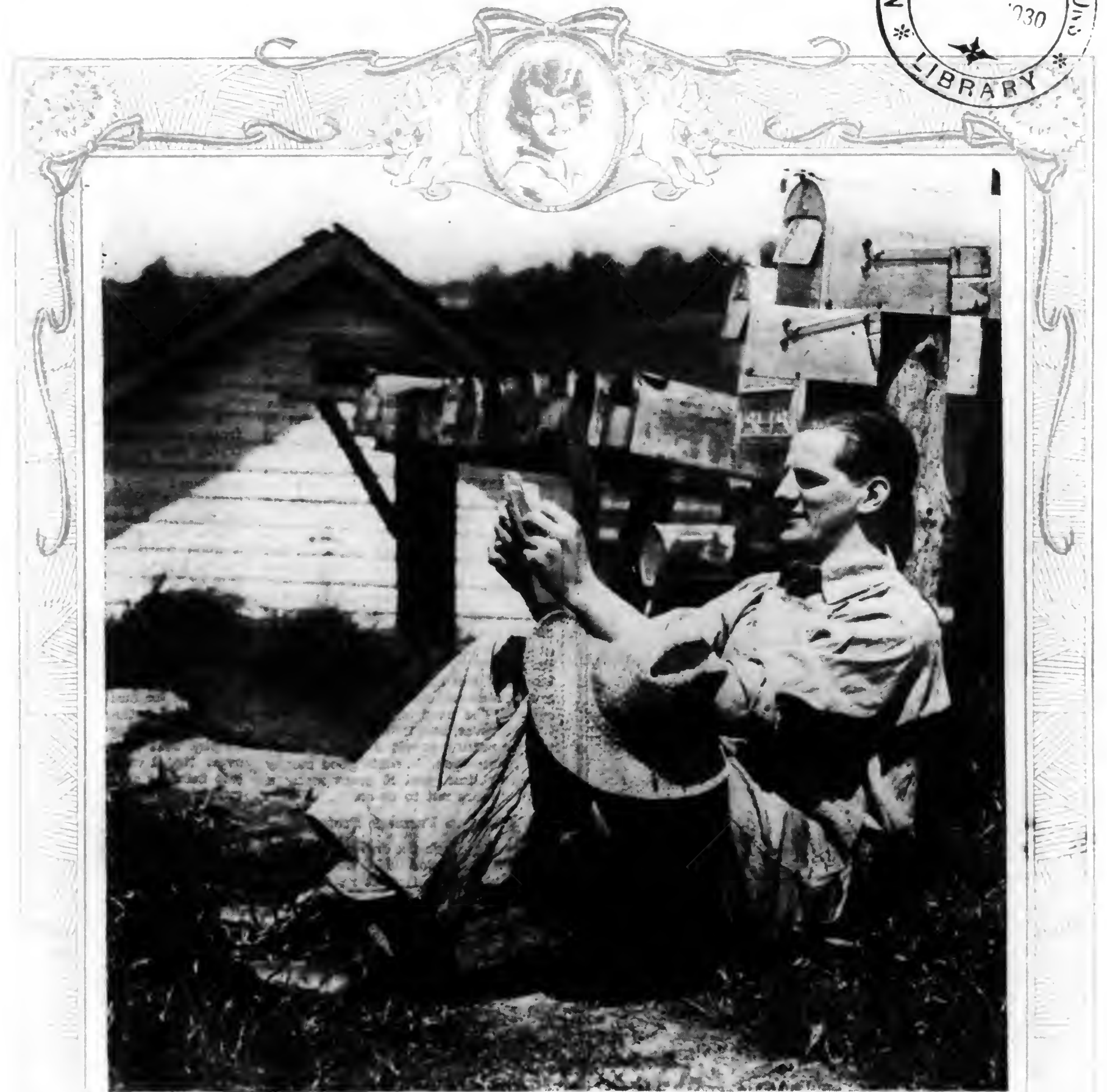
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June 21, 1930



Philadelphia

Pittsburgh

Harrisburg

Farm Facts and Fancies

By ALVA AGEE

You have a right to demand the results which come from years of research, investigation and study, and the economies of our tremendous production.

Thousands of farms are proving that Park & Pollard feeds stand the acid test for maximum feeder profits.

Dependable Feed for Every Purpose

Poultry Feeds: Lay or Bust Dry Mash • Red Ribbon Scratch • Growing Feed • Intermediate Chick Feed • P & P Chick Starter • P & P Chick Scratch—Dairy Rations: Overall 24% • Milk-Maid 24% • Best-Milk 20% • Herd-Health 16% • Milkade Calf Meal—Other Feeds: P & P Stock Feed • Bison Stock Feed • Go-Tu-It Pig and Hog Ration • Pigeon Feed • P & P Horse Feed • Potomac Table Corn Meal.

WHEN we began liming land to correct soil acidity thirty years ago there was a fear that the lime would reduce the availability of the superphosphate used. That seemed reasonable enough because we knew that a part of the lime had been taken out of the combination in the phosphatic rock to get the phosphorus into available form. Another fact was that untreated rock gave its best results in an acid soil, losing a part of its lime and gaining availability.

On the other hand, in that day of much guessing, we knew that superphosphate gave good results in limestone land, and we knew that the use of superphosphate and lime was increasing yields. Nowadays we turn to that hand-book of safe knowledge, the Ohio Station's forty-eighth annual report, and in discussion of tests for acid-soluble phosphorus in plots limed and unlimed for thirty years there is this statement:

"The favorable effect of lime in maintaining phosphorus in a more active or available state is indicated by the increased solubility of phosphorus in the limed soil of both fertilized and unfertilized plots, although the total phosphorus content was less than that of the unlimed soil. This increase in relative solubility substantiates the general conception that soils well supplied with calcium carbonate retain phosphorus as calcium phosphate rather than in combinations considered to be less available."

Lime and Inoculation

The bacteria that produce nodules on the roots of a legume continue in the soil for a long term of years if there is plenty of lime. When the soil is acid, the organisms cannot carry on. The Illinois Experiment Station made a test in the case of soy beans. It found no soy-bean organisms in some distinctly acid soils that had grown soy beans only three years previously, while in plots that had been limed the nodule organisms had remained for fifteen years although no soy beans had been grown within that time. Soy beans withstand more soil acidity than some other legumes, but they cannot return full value unless the organisms are present.

The effect of lime mentioned above and the effect on legume bacteria are only two of the many benefits we gain from liming acid soils. Lime is the friendliest material ever applied to land, and soil acidity in a marked degree is disheartening for land and its owner. The need of liming will continue forever, and I reckon that is one reason nature provided man with so much limestone. It costs good money to apply lime, and it costs many a farmer more not to do so.

The Eastern Farmer's Protection

Two years ago the Interstate Commerce Commission held that it had authority to cut freight rates below cost of transportation when the producers of a commodity were in distress. It did this in the case of some classes of western fruit, and the Supreme Court has decided that the Commission had no right to make such a demand on the railroads.

Our readers may not be specially interested in a contention between these fruit growers and the railroads, but it was urged at that time that their one great advantage was their relative nearness to market. The farms of Ohio and the states east of it would have far less value than they have today if the West could reach eastern markets as cheaply as the eastern farmer can do so. A degree of protection is given by the extra cost of transporting western products to consumers.

The proposal was to relieve the distress of western producers by com-

PELLING the railroads to haul the stuff into eastern markets for less than the transportation would cost. That in turn would lead to increased production in these regions remote from market.

Our eastern farms, generally speaking, are not naturally rich, and they have had continuous competition from the West. There is nothing unfair about that just as long as cost of transportation of products is paid, but cutting below that is an unfair blow at farm values in the older section of our country.

If the rule respecting this fruit had stood, it could have been applied to all manner of western food products when there was serious overproduction. This Supreme Court decision in the interest of justice protects the East's natural advantage.

Where Honesty Leaves Off

I know a man who sold property to a man in whom I am interested. The buyer was new to the region, and told the seller what he was needing, and why. He had excellent reason to believe that the seller was a dependable man, and let his statements have a good deal of weight with him when making up his mind about the purchase. As a matter of fact that seller must have known that the property was not what the buyer was seeking, but he was interested only in making a sale and getting his money out of the property. He proved to be dependable only in respect to looking after himself.

Some will say he was only within his rights in looking out for himself, just so long as he told no untruths. This matter of determining where honesty leaves off and undue self-interest begins is the biggest puzzle of all in buying and selling.

Staying Put

A reader thinks I am drifting away from a liking for good farming when trying now and then to see what could be said for the thriftness and what should be said in praise of owners of "homely farms." Not at all, though the two classes are miles apart. In the first case nobody had a good word to speak, and it was worth trying. The second class is full of sensible folks that it could offer its own defense if it were the least interested in doing so.

Personally, I like a type of farming that lets a man put as much energy and hustle into it as any other successful business man must do. It is a matter of inclination. Despite that inclination, I rather envy the man who tempers hustling with a true philosophy that he takes time to think over. No, it was chiefly an excursion into fairness and an admission of his man rights.

Striped Cucumber Beetles

THE striped cucumber beetle feeds on cucumbers, melons, squashes and pumpkins. Pumpkins are a kind of "iron ration" for him, however. H. C. Hockett says: "Controlling cucumber beetles is largely a matter of chasing them out of one field into another."

Home gardeners may chase them by dusting their plants with a mixture of one part of calcium arsenate and fifteen parts of hydrated lime. This may be shaken over the leaves through cheesecloth or other coarse cloth—New York College of Agr.

WITH fewer blacksmiths and with more machinery to break, the farm shop becomes more important each year. Bulletin E 108, "The Farm Shop and Tool Equipment," suggests the tools you need. Write the Mail Room, Roberts Hall at Cornell University, Ithaca, N. Y., for your copy. It is free.

Emergency Crops for Winter

ONE of the most severe drouths ever experienced in the East was broken up last week by a gentle rain more than 15 hours. It is now a foregone conclusion that the meadows will not make a half crop, but there is yet time to make a good corn crop. Farmers are writing me from many sections asking what they can sow or plant to make feed for their livestock next winter. He is worse than a quitter who will decide to sell his stock because he will not have hay to winter it.

I will proceed to discuss some crops that can be grown to take the place of hay. I have seen corn planted after the hay has been harvested and a wonderful lot of very good feed produced. It may be drilled in rows or broadcast with the grain drill. There are few crops that can be grown that will excel corn in tonnage. Cattle will eat this feed with relish and do.

Sorghum can be handled in the same way and to as great an advantage. It makes a very palatable feed and cattle will eat it with as great relish as they will silage. If desired other of these crops could be put in the silo.

Soy beans can be sown as late as the first of July and make a very good feed. A subscriber asks how it would be to sow millet and Sudan grass together for hay. I have sown both Sudan and millet with soy beans and they did very well. Have never mixed millet and Sudan grass but I imagine if our correspondent tries it he will find his stock next winter picking at the Sudan and leaving the millet for the last. Both millet and Sudan have about the same feeding value as timothy hay but the Sudan being a member of the sorghum tribe is sweet and is relished by all kinds of livestock. Care should be had not to let the Sudan grow late in the fall after a frost. It is said to poison stock eaten after it is frozen.

I know nothing that is not a legume that will equal Sudan as a supplemental crop. I have sown millet after had cut my meadows and plowed them and raised a fine lot of hay. If allowed to mature the seed it is not very safe to feed, especially to horses, but at that stage it makes a very

heavy draft on the soil. One reader asks whether he could sow sweet clover yet and cut it for hay. It might be done but I would rather risk some of the crops named above. Hubam clover no doubt would do the work. It is an annual and grows more rapidly than the biennials. W. D. Zinn.

Every Man's Farm a Jungle

IF it were possible to magnify a pasture several hundred or thousand fold—and all the parasites in the same proportion—so that blades of grass would appear as tall bamboos and small forage plants as great jungle trees, it would be easier to convince livestock growers of the desirability of careful attention to sanitation and of the importance of constant watchfulness in combating the ravages of parasites that live in the pasture and attack the various kinds of livestock. So speculates the U. S. Department of Agriculture.

Many of these parasites have powers of reproduction and multiplication that seem marvelous. Thousands of immature forms will come from a single adult parasite. Many live through complicated life cycles and may have one or more intermediate hosts on which they live between their attacks on horses, cattle, sheep, or swine.

The stomach worm, that infests the sheep, for example, emerges from the ground and finds a resting place in a tiny curl in a blade of grass. There it remains while the grass develops. If no sheep bites off the grass the stomach worm in time dies. If a sheep crops the grass, the stomach worm enters and becomes active within the sheep's stomach, joins with other stomach worms, and preys on the sheep, which is likely to become unthrifty and unprofitable.

Fortunately for the livestock growers, most of these parasites are able to live and reproduce only when they are able to attack domestic animals of the same or closely related species. The danger from parasite-infested pastures is by no means so great if it is possible to use this year's horse pasture for cattle or sheep next year and for hogs the third.

Reservation Blank for Pacific Northwest Tour

(SEE PAGE 8 FOR ANSWERS TO TOUR QUESTIONS.)

Tour Manager, Pennsylvania Farmer, 7301 Penn Avenue, Pittsburgh, Penna.

Sir: Enclosed find check (or money order) for \$20 per person for reservations on the Pennsylvania Farmer Pacific Northwest Tour. I shall join the tour at the town marked below. Before July 15th I shall mail check for the amount shown opposite the town where I shall join the party. I understand that no further payments will be required and that all money paid will be refunded if I cannot go.

| | |
|--|----------|
| PHILADELPHIA, Paoli, Frazer, Conesville | \$269.92 |
| LANCASTER, Elizabethtown | 297.00 |
| HARRISBURG | 294.92 |
| WILKESBORO, Milton | 284.92 |
| WILLIAMSPORT, Lock Haven, Renovo | 292.76 |
| DRIFTWOOD, Emporium Junction | 290.54 |
| PORT ALLEGANY | 288.54 |
| PITTSBURGH, Beaver Falls, Youngstown, Erie | 285.79 |

The reservation deposit and the final payment per person shown above are to cover all necessary expenses for the entire tour from the town checked, including berth, meals, tips, side-trips, etc.

Name.....
 Town.....
 County..... State.....
 Names and addresses of other persons for whom I am making reservations follow:
 Name.....
 Address.....

Uses Pyrox Instead of Home-Made Bordeaux — Gets Increased Yield

IN every potato-growing section, the farmers who are using Pyrox instead of home-made bordeaux are getting bigger yields, finer quality potatoes, and more profits. The extra yields obtained with Pyrox more than pay for the cost of spraying and leave extra cash besides. Mr. A. J. Meyer of Annville, Pa., writes:



Mr. A. J. Meyer of Annville, Pa.

"Last spring I decided to make a comparison of Pyrox and home-made bordeaux sprays so I put on one-acre tests for each material."

"At digging time in September accurate measurements of the land and weights of the potatoes were made. The potatoes sprayed with Pyrox yielded 287 bushels per acre, and where the home-made bordeaux was used 241 bushels per acre. This was a gain of 46 bushels to the acre for Pyrox, a substantial increase. This gain pays the spray material bill and leaves a profit."

"All conditions for the two plots were the same in every respect and I believe that the Pyrox spray is responsible for the increased yield."—A. J. MEYER.

If you have not used Pyrox try it this year. Pyrox is a combined insecticide and fungicide that kills insects, prevents blight, and other plant diseases, and stimulates plant growth.

Quick and easy to use. It does not clog the nozzles and sprays in a fine mist. It has excellent sticking and covering properties.

Spraying with Pyrox not only results in the extra yields normally expected from spraying—the user can anticipate a still higher yield which will pay for the difference in the cost of the Pyrox many times over.

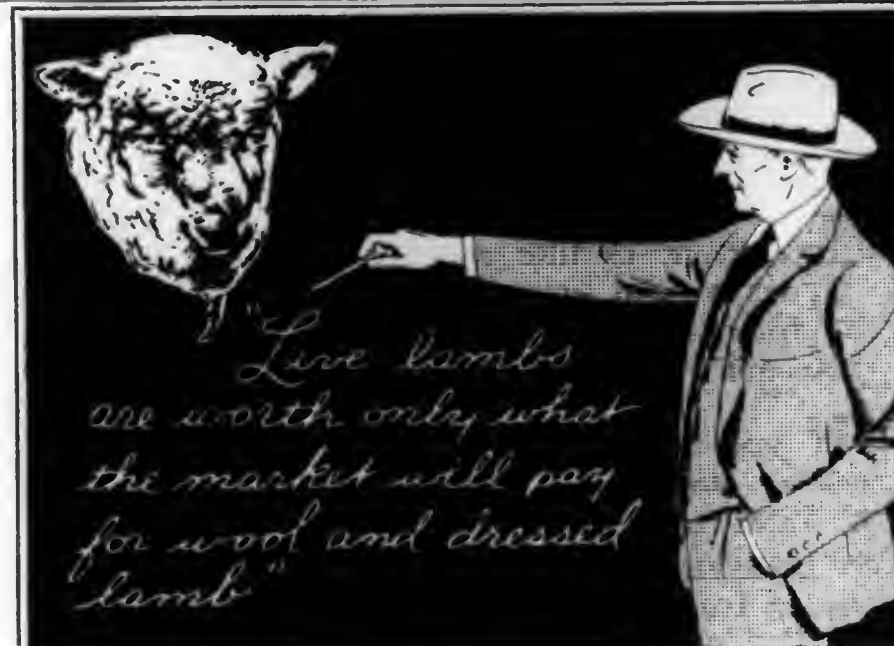
Pyrox is obtainable in all sizes from 1 pound jars to 300 lb. barrels, and is offered at the lowest price since 1899. See your dealer today and obtain from him a copy of the new illustrated Pyrox Spray Guide.

BOWKER CHEMICAL COMPANY
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THE NEW IMPROVED
Pyrox
REG. U. S. PAT. OFF.



When writing advertisers please mention Pennsylvania Farmer



FIFTEEN years ago, economists discussed the factors that make livestock prices. Nowadays, livestock producers speak understandingly of price factors, and it is no longer popular to say the packers make livestock prices.

Producers know their economics. The discussion that has been and is taking place regarding the recent situation in the lamb market proves this.

Most producers know there were 2 per cent more lambs on the principal markets in January, 21 per cent more in February, and 39 per cent in March, 1930, than in the same months last year. And these lambs

were 3 per cent heavier. This describes the supply situation.

Because of greater supplies and lessened consumer buying power, government figures show that live lamb prices in March dropped \$5.95 a hundred weight under 1929. A drop of \$3.79 a hundred weight (live basis) in dressed lamb and \$2.01 a hundred weight (live basis) in wool, accounts for most of this. Other by-product prices also are lower.

The above figures clearly substantiate the statements made by "economist-producers" that lambs can be worth no more than the value of wool and dressed lamb.

Swift & Company
U. S. A.

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THE ANSWERS

ON page 8 of this issue are the answers to questions asked about our tour to the Pacific Coast. If your questions are not all answered there drop us a line and get a prompt answer by mail.

ON OLD PASTURES

A CORRESPONDENT of the London Livestock Journal says: "Lime is badly needed on three-fourths of the farms of this country." We found that the best of the wonderful pastures of England had liberal applications of lime in some form whenever the eye of the master saw that it was needed.

MEN WANTED

TWO weeks ago we stated that there is no shortage of farm labor and said that we had received more applications for jobs than for men. The reverse is now true. More requests for men have been received than we could supply if all our applicants were unemployed. We do not conduct a labor agency and cannot do so, but we like to help both sides whenever that is possible.

EMERGENCY CROPS

HAY will be a short crop over a wide area this year. On another page of this issue Mr. Zinn discusses emergency hay crops, and the emergency exists here and now. In addition to his suggestions we mention the possibility of cutting oats a little greener than usual and utilizing the straw. British stockmen depend on oats straw for roughage much more than we do, but that straw is never dead-ripe when so used.

FROM LIFE

A YOUNG man who wanted a position with a well established company was asked to call on the president. He did so and they discussed the business at some length. The president mentioned various shady ways of getting business but did not condemn them. The young man condemned them in his own mind but did not speak out against them. He never got the job. He was being tested, though not fairly, and in the eyes of his prospective boss he had failed to stand the test.

PENNSYLVANIA FARMER

A REASON FOR MULES

IN the Journal of the American Veterinary Medical Association Major George H. Koon of the Veterinary Corps, U. S. Army, gives some interesting facts about horses and mules in the army. During the period of the greatest activity in France, July 1, 1917, to November 11, 1918, losses of horses in service were 25.37 per cent. In the same period losses of mules were only 10.88 per cent. From the beginning of the war to the treaty of peace, over two years, losses of horses were 14.9 per cent, and of mules 4.6 per cent. These figures suggest one reason why so many thrifty farmers use mules.

A NEW TARIFF

AFTER a wrangle of about eighteen months the new tariff bill got through the Senate by a vote of 44 to 42, the House passing it by a substantial majority. The President has announced that he will sign it, and so relieve the country of the uncertainty which is always had for business. Heretofore we have expressed our opinion as to the effect on agriculture of this legislation and nothing further in that respect is necessary, for soon it may be judged by experience, which is of more value than any number of opinions. The new law is certain to become the subject of partisan debate in which many distortions are common. Let us try to judge it calmly and from a business standpoint rather than from a political standpoint.

SIGNIFICANT CHANGES

THE International Livestock Exposition announces a number of changes in its plans for future shows. Two of these changes are of special interest as indicating tendencies in the livestock business. The extremely heavy market hog is barred from future shows. Hereafter no barrow weighing more than 350 pounds will be allowed to compete for prizes. Probably another 50 pounds will be taken off some day as the heavy hog is an extravagance no longer desired by producers or consumers. The other change in the Exposition plans is the elimination of the old bull from the show-ring. In the 1926 show no bulls born before September 1st, 1926, will be allowed to compete, Angus excepted. That breed's aged bulls may date from May 1st, 1926, this time but not hereafter. This idea is correct. The aged bull's place is in the breeding herd and not in the show-ring.

A QUEER DEAL

THE bulk of the fine wool of Southwest-tern Pennsylvania has been sold. Most clips brought 25c straight but as high as 27½c was bid for some wool known to be practically all fine delaine. The National Wool Marketing Corporation has been trying to get some Pennsylvania wools. Its agent offers to lend the grower whatever the cash buyer pays, then to pay him in addition whatever the wool brings in excess of the advance. The grower is to pay six per cent interest on the amount advanced. These growers are not members of any cooperative wool marketing organization. Why pay dues when the Corporation advances the current price with a promise of more if the wool brings more? The Corporation's action, taken at considerable expense, is speculation rather than cooperation. Or is it in part an attempt to lend more three per cent money at six per cent?

CATTLE ENOUGH

AFTER hearing about a prospective cattle shortage for nearly half a century we have concluded that there isn't going to be any such thing. There might have been a shortage of beef long ago if production had continued in the old way and consumption

on the old scale. But things have changed, and all the changes are improvements so far as the beef supply is concerned. Winter and disease losses, so common in the old-time range industry, have been brought down to a low point. Better feeding has not only helped to reduce losses but has produced bigger calf crops. Better breeding has resulted in earlier maturity, so that three cattle now go to market where two or even only one went in the old days. The same principles applied to the production of hogs and sheep have resulted in a bigger output of meats, and with an abundance of some meats there is not likely to be a famine in any. This country has had enough cattle in all its past history except in time of war, it has enough now, and it is likely to have enough in the future to prevent any beef famine.

NOT EARNING

PROBABLY farmers constitute the only large class of men now fully employed. They all have a job of some kind; but the latest estimates (April) show the number of idle union men in other industries to be 20 per cent, in the building trades 40 per cent. Another statement may be of interest to those who lack farm dividends, at least such as are payable in cash. Since the first of this year 257 corporations of such magnitude that their earnings are of public interest have either reduced their dividends or omitted them entirely. These things are not stated for the purpose of comparing agriculture, either as to labor or as to capital, with other industries, for they afford no basis for proper comparison. They are given merely to suggest one of the reasons for the current lower prices of farm products.

TO INFORM CONSUMERS

THE New York Mercantile Exchange has done good work in bringing to the attention of consumers the fact that wholesale prices of eggs are low and telling them what retail prices should be. This example should be followed in every case in which retailers fail to adjust their prices to the wholesale market. Consumption depends on retail prices to a very large extent, and unless such prices reflect actual conditions neither producers nor consumers get a square deal. The Mercantile Exchange would have done better, however, if it had omitted reference to meat from its statement to consumers. It has no right to assume and to say that eggs are "healthier foods than any meat product" as well as cheaper. Such comparisons are unnecessary as well as unfair.

THE NEW MILK CODE

SEVERAL kinds of letters come to me about Pennsylvania's new milk code which goes into effect September 1st. Some inquirers merely want to know what it is. Others evidently have been misinformed about its provisions and need to study it. Still others have made up their minds that the code is for the advantage of big dairymen and distributors; or is designed to put the little man out of business. We have published several articles in reply to these questions and will soon present another, prepared by the Department of Health at our request. Let us say now that the new code is not designed to put anybody out of business who deserves to remain in business. It is not intended to discriminate in favor of big and against little producers. It is not likely to wreck the dairy business or to bankrupt the dairyman. In the end it will help the business, for all measures which improve the quality of the product have this effect. Let us give a fair trial to a measure which was framed mainly by dairymen, and was backed by them, instead of condemning it in advance.

June 21, 1930

June 21, 1930

AST Wednesday the New Jersey College of Agriculture and Experiment Station was host to 4,000 farmers attending the annual Field Day. The day was bright and clear, and the prospects of gloomy prospects in the week. By noon parking spaces were filled with cars and the college campus with its tents and crowds of people lent a festive atmosphere to the occasion.

Field day is one time in the year when New Jersey farmers put aside their farm work and with their families spend a day at the Experiment Station. Here they gain further information concerning the experimental work conducted in their fields, become acquainted with the people who are in charge of this research work and renew old friendships. Each year a greater number of farmers take advantage of the opportunities offered by field day.

The station staff spent a busy morning answering questions and helping to solve various problems brought to them by poultrymen, dairymen, fruit growers and others. The afternoon was spent in inspecting the poultry flocks, the dairy, the orchards and the many experimental projects being conducted on the college farm. Signs about the experimental plots and farm explained clearly and briefly the nature of the tests being made and in some instances the visitors could judge for themselves the results of the various practices. The exhibit of historic farm implements formerly used in New Jersey attracted considerable interest and comment among the visitors. The college now owns several of the earliest types of cultivators and plows used in the state and is gradually building this agricultural museum.

THE need of agriculture to organize production on a large scale through co-ordinating the production of the many small farm units and centralizing the control of marketing and distribution is pressing, said Dr. A. Lipman, dean and director of the New Jersey College of Agriculture and Experiment Station. In his Field address he elaborated on the problem of organization and said that production of many small farm units could be coordinated either through associations of farmers or through the activities of large-scale buyers who might serve as a nucleus for rationalizing production programs in entire regions.

Referring to the need for centralizing selling and distribution, he advocated the formation of local selling groups which in turn would affiliate with state, regional and national cooperatives as urged by the Federal Farm Board.

Dr. Carl E. Ladd, director of agricultural extension for Cornell University, outlined a long-time program for the development of New Jersey agriculture. He emphasized the need for turning marginal and sub-marginal lands into national and state forests and parks.

Today we are facing a new era in the cooperative field," Dr. Ladd asserted. "Experience, plus facts and scientific studies of farm cooperatives, their many ramifications combine to furnish a basic requirement for a great new cooperative marketing and cooperative buying movement. Thus the time has come to renew our faith in cooperative marketing, to plan through and develop such cooperative movement as shall best serve the business needs of agriculture."

AAC LOWE is not the only Hunterdon county farmer to spend years of weary and back-breaking labor with the hoe in an effort to rid his farm patches of thistles and horse nettle. Only Mr. Lowe threw away the hoe last year and tried chemical means of extermination by the use of sodium chlorate. County Agent Gaunt after visiting Mr. Lowe's farm a short time ago said that although there are a few thistles remaining in one or two patches, most of them had been killed. He believes that two or three more applications of this material will completely eradicate this weed.

Mr. Lowe feels that the chemical treatment is much more satisfactory and less laborious than digging thistles out by the roots. All vegetation was killed for at least three months after the plots were treated by the chemical, but grass is now growing on the treated patches of land.

At least 2,000 people are expected to attend the annual state-wide picnic of the New Jersey Federated County Boards of Agriculture and the

PENNSYLVANIA FARMER

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New Jersey Farm Comment

By G. W. HARRIS

State Grange which will be held at Atlantic Highlands, Monmouth county, on July 17. The meeting place for this year is more centrally located than formerly and for that reason an even greater attendance than that of the past is anticipated. President Thompson of the National Farm Bureau Federation and L. J. Taber, Master of the National Grange, are listed as the speakers for the day. In the afternoon two tours of the nearby farm districts are outlined for all those who wish to make these trips.

AGRICULTURAL WEEK at Trenton will be held during the fourth week of January this coming year instead of the second week as in the past. This decision was reached by the State Board of Agriculture in order to avoid conflict with the Madison Square Garden Poultry Show in New York City and the Pennsylvania Farm Products Show which is held during that month at Harrisburg. The new arrangement will give an additional day for meetings, since it will not coincide with the opening of the Legislature and will thus permit the



Some of the 4,000 Field Day visitors at the New Jersey State College.

holding of the official Convention on Tuesday instead of Wednesday.

A TWO-DAY automobile tour, on July 1 and 2, will be conducted through Delaware and Maryland by the New Jersey Horticultural Society for the benefit of New Jersey fruit and vegetable growers.

Several visits will be made near Dover, Delaware, the center of Delaware's fruit growing district. The tourists will spend the night of July 1 at Ocean City, Maryland, and the following morning will continue the tour through the orchard and truck areas of Berlin and Salisbury, Maryland, and Bridgeville, Delaware.

Professor A. J. Farley, secretary of the Society, points out that this trip through a competing fruit and vegetable section will not only give New Jersey growers an opportunity to estimate when some of these most important crops will be ready for market, but will also enable them to pick up many pointers in production from the Eastern Shore growers.

This is the first tour of its kind to be conducted by the State Horticultural Society. C. B. Lewis of Riverton is chairman of the committee making arrangements for the trip, while the other members of the committee are R. P. Hulsart, Manassquan; H. F. DeCou, Merchantville; Wood Wyne, Thorofare; D. M. Babbitt, Bridgeton; and A. J. Farley, New Brunswick.

INDEPENDENT truckers on the Eastern Shore, who within the past few years have built up a tremendous volume of business, especially in the hauling of perishable farm products to city markets, were victorious in their fight against the granting of franchises to two large trucking concerns in which the Pennsylvania Railroad is said to have been actively interested.

Some time ago the Baltimore Transfer Company

and the Peninsula Auto Express applied to the Public Service Commission of Maryland for franchises to establish a network of truck routes on the Eastern Shore. These applications were rejected after vigorous protests from independent truckers en masse, the Del-Mar-Va Eastern Shore Association, Salisbury Chamber of Commerce and many other organizations.

Shore interests in opposing the granting of the franchises felt that the establishment of this network of truck routes would be detrimental to the truckmen who are now operating in those sections. It was pointed out at the hearing before the Public Service Commission that for years the railroads had made no effort to serve Eastern Shore producers and that independent truckers had stepped in and successfully met the needs.

These independent truckers backed by their interests proved themselves a strong and powerful group. If they will only continue to keep a relationship of unity they can do a great deal toward the establishing of uniform hauling charges and place the trucking business on a more stable basis.

Strawberry Industry Expanding

THE growth of the strawberry industry is a striking example of the great expansion of the so-called luxury crops in recent years, says the Bureau of Agricultural Economics, U. S. Department of Agriculture. Time was when the strawberry season was limited practically to the season of locally grown berries. Fast transportation and refrigeration changed this until now consumers may enjoy strawberries practically the year round. Within ten years the commercial acreage of strawberries has increased from 93,420 acres in 1920 to 202,180 acres in 1929, and a projected area of 183,680 acres this year.

"The commercial strawberry," says J. W. Stowbridge in a technical bulletin on the origin and distribution of the commercial strawberry crop, just issued by the U. S. Department of Agriculture, "is believed to be a descendant of the wild meadow strawberry native to the country. The crossing of this wild strawberry of the eastern part of the United States with the cultivated varieties from Chili resulted in hybrids from which the strawberry grown at the present time developed."

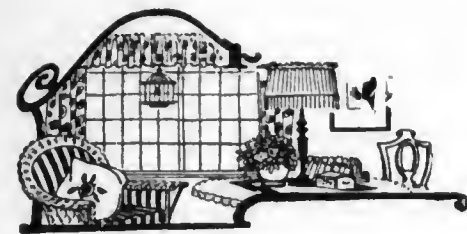
"Market production began about 1800, but, because of the perishable nature of the varieties then grown, only small quantities were produced and those in localities near points of consumption. The expansion of the industry as a commercial proposition began about 1860 and has been encouraged by improvements in methods of culture and by the development of varieties which are adapted to meet the variety of growing conditions in many producing sections and which have qualities that give a reasonable assurance of delivery in good condition to distant markets. Refrigeration and other improvements in transportation have aided the development of the industry in sections far removed from the centers of consumption."

The industry has experienced marked changes. Tennessee was the leading strawberry producing state in 1920, but Louisiana, an earlier producing area, now leads in acreage and production. The preliminary estimate of acreage in Louisiana this year is 24,600 acres as against 6,500 acres in 1920. Tennessee in 1920 had 11,090 acres in strawberries, and reached a peak of 26,220 acres in 1924. The estimate for this year is 13,450 acres.

Missouri is second in acreage this year, with 16,710 acres planted, followed by Arkansas with 14,870 acres, and Maryland, 11,750 acres. New York, Chicago, Boston, Philadelphia and Detroit are the leading carload markets, but the consumption in these markets is considerably greater than is indicated by carload receipts, as augmented by increasing motor truck transportation. Indicative of the greater use of motor transportation, Delaware last year trucked strawberries as far as Montreal, Canada.

Mr. Stowbridge has written a comprehensive publication on the various phases of the strawberry industry including discussion of areas of production, yields, acreage trends, production and shipments, varieties, the industry by states, costs of transportation, and market receipts. It has been issued by the U. S. Department of Agriculture as Technical Bulletin 180-T under the title "Origin and Distribution of the Commercial Strawberry Crop."

To be continued.



Garden Supplies Vitamin C

NUTRITION specialists urge constantly that the diet for all ages, but especially for children, should include an abundance of foods rich in vitamins. There are now recognized, however, at least six independent vitamins. As each has its own function to perform in growth and bodily well-being, it is necessary to know what each one does and what foods supply it. Otherwise a dish might supply some, but not all of the different vitamins.

For instance attention is often called to the necessity for vitamin C in the diet. Especially good sources of this vitamin are the citrus fruits, (oranges, grapefruit and lemons), raw cabbage and turnips and tomatoes, raw, cooked or canned. Other foods mentioned by the Bureau of Home Economics of the U. S. Department of Agriculture as supplying this vitamin are apples, potatoes, raspberries, spinach, sprouted legumes and string beans.

One reason for insistence on supplying plenty of these foods is that the body has only a limited capacity to store vitamin C. Replenishment must go on continually. Another reason is that this vitamin is very easily destroyed by heat and oxidation. If vegetables are cooked too long they may lose their vitamin C. All recent instructions on vegetable cookery stress quick-cooked methods. Canning often destroys vitamin C. In the case of acid foods like tomatoes destruction is not so extensive. Tomatoes seem to retain most of their vitamin content either cooked or canned.

On diets deficient but not entirely without vitamin C, children become irritable and lacking in stamina, do not grow normally, and are less resistant to infectious diseases. Shortage of vitamin C is thought to be an important factor in the prevalence of tooth decay and of much of the so-called rheumatism in children and adults. When vitamin C is entirely lacking, scurvy develops. This used to happen on long sea voyages before present knowledge of the preventive value of lemons and other portable foods containing vitamin C.

In testing foods for vitamin C in the laboratory, guinea pigs are fed a basal diet complete except for this vitamin, and then given measured amounts of the food in question. If the animal thrives and grows well, the food is probably a good source of vitamin C; if the animal develops symptoms of scurvy—sore, stiff joints, a tendency to hemorrhage, sore gums, loosening of the teeth, and fragile bones, the food under test probably is deficient in vitamin C. Similar symptoms are found in human beings whose diet has lacked the foods that supply this important vitamin.

Try These Recipes

VEGETABLES grown in the home garden are a welcome addition to the family diet. Among the green vegetables which Miss Ethel Jefferds, home economics extension specialist of Pennsylvania State College, recommends for use are chard, spinach, kale, Brussels sprouts, beet tops, cabbage, romaine, lettuce, broccoli, chicory and dandelion greens.

Such greens increase iron and other minerals in the diet. When eaten raw they are high in vitamins, so important in promoting general health and protecting the teeth. By serving and preparing in various ways, these vegetables can be made appealing to members of the family.

Too much time often is spent in cleaning vegetables, Miss Jefferds says. To remove sand and grit from greens pour warm, not hot, water over them and allow to stand in plenty of water for a few minutes until the sand settles to the bottom of the pan, she directs, and then rinse in one or two clear waters.

Here are a few recipes:
Broccoli.—Wash the broccoli and cook in a small amount of water until tender. If the stalks are long, cut in half. Serve heads on plate with Hollandaise sauce.

Mock Hollandaise Sauce.—Two tablespoons butter, two tablespoons flour, three-fourths cup milk,

grated cheese, and add remaining spinach and cheese. Add beaten eggs to milk and pour over the mixture in the baking dish. Cover top with buttered crumbs and bake in moderate oven for 20 minutes.

A New Salad

MORE than one time in the history of the world the seven-seas search for treasure has ended in finding a pearl on the beach below the homelands. And to the housewife, a new salad, especially an easy salad, is a pearl in the setting of her daily glories of achievement.

A turnip. Yes. You know what a whale of a job it is to set out to peel turnips for the evening stew, and have six to sixteen young ones standing gauntly around you begging for slices of them in the raw. Instinct is a safe guide-post. And, you make raw carrots into salads that enchant these new-fangled vitamin hounds. Then try grated raw turnips. They have a delicacy, a fruitiness, and a faint spiciness altogether ethereal as compared to turnips boiled. They stay white for hours, like cocoon, and combine for health and beauty with all the usual salad dressings.

Carrot, horseradish, turnip and apples are twice as dainty and twice as flavorful, if grated instead of chopped.

M. M. Fetzer.



HOW good those beans will taste next winter! It's not a day too soon to get the canning supplies in shape for those June products. Can your beans while they snap. Gather them fresh the morning you want to can them and work fast. Stem, blanch in boiling water ten minutes, then hustle them into hot clean cans or jars.

Quarts need but one hour if you use a pressure cooker. In a water bath two hours is necessary. If tin cans and a sealer like in the picture are used, the products are hastily cooled in a tub of water, a strong point in favor of tin cans. Write us freely if you have canning troubles. We'll try to help.

G. S. S.

one-half teaspoon salt, one-eighth teaspoon pepper, few grains cayenne, yolk two eggs, one-half cup butter one tablespoon lemon juice.

Melt butter, add flour and stir until well-blended; then add milk, salt, pepper and cayenne, and bring to the boiling point. Stir in the egg yolks, butter bit by bit and add lemon juice.

Baked Cream Spinach.—One peck spinach, four tablespoons butter, salt and pepper, two eggs, slightly beaten, one-half cup milk, one-half cup grated cheese, one-half cup butter crumbs.

Cook the spinach without water, drain and add butter and seasonings. Place part of it in a buttered baking dish, sprinkle it with one-half of the



Foods that Supply Vitamin C

A New Kind of House Warming

By HILDA RICHMOND

AFTER some years of necessary absence from our farm we had the chance to go back. When the tenants finally moved we saw dirt, disorder, fences broken down, gates missing, wall paper torn and discolored, walks torn up—some one in the family said all he could think of was the "abomination of desolation" spoken of in the Bible.

Well, as soon as we had places to sleep and eat and do simple housekeeping, we were surprised by the neighbors turning out in every direction to lend a hand. That kind of housewarming may be common enough in some parts of the country, but it was all new to us. The ladies made preparations for the big meal we had seen in years. The men with teams carted away trash, brought up some wood which they ranked in the kitchen door, the wood house having been literally demolished, split kindlings, trimmed shrubbery and fruit trees in the yard, repaired the broken chicken coop, raked off the garden and had a glorious bonfire which included everything from two year-old corn stalks to the shoes and old clothes discarded by the tenants.

As we live near the school house and pupils joined in the dinner and the welcome. The country minister seeing the large gathering stopped in and added his good word to the pleasure our friends expressed to see us back. It wasn't anything but a city reception, or a fashionable luncheon, but big, hearty welcome from old friends and others who have moved in since. It seems like home now, though there is much to be done, and some day we may have an opportunity to welcome somebody in the same fashion.

To Attract the Tourist

SPARE bedrooms in country houses may well be made to contribute their bit to the family budget, according to the New York state college of home economics. Letting rooms to tourists may prove a pleasant as well as a profitable summer occupation for the housewife with more room than she needs.

Advertising may be done by placing signs along the nearby highway. These should be at an angle to the road, and set low, so as to be within the range of the motorist's eyes as he drives. Letters should be large and definite, either blue on a light ground or white on a black ground, the latter being somewhat more desirable at night. Wording should be simple and concise.

The house should be attractive to the prospective guest. Fresh paint and spotless windows add greatly to the attraction of a house, and the lawns should be well kept, with bright flowers and trees if possible to make the place look homelike and comfortable. All that is necessary to keep interior in tune with this first impression is scrupulous neatness and cleanliness.

The rooms should appear to be cool, and to the end walls and rugs should be light in color and preferably plain. Painted or calcimine walls and hardwood floors are most suitable. Few pieces of furniture are preferable to too many.

Bedrooms should be the coolest places in the house. They should have windows should be, if possible, and in all cases screens should be which make it possible to open the windows without the afternoon sun. Where the furniture available is old-fashioned, the scheme may well be carried out by the use of rag rugs and old-fashioned bedspreads, provided everything is clean.

Service should always be given cheerfully and as efficiently as possible. There should be water at all hours, and meals served at any time. Always a great attraction to tourists are visual tables in the dining room are advisable. It is well for the family not to eat with the guests. When the guests show an inclination to visit, even, they should meet with friendliness and hospitality.



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Since heavy, rich food is often difficult to digest and produces heat, rich gravies, fried foods, pastries and heavy desserts may well be omitted from the menu in warm weather. Substitute more fresh fruits and vegetables and cool fruit or milk beverages.

Hang up the kitchen utensils whenever possible. The egg beater, the small saucepan, or other utensils are much more accessible if hanging in sight than if kept in a shelf or in a drawer among many others.

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|------------------------------|------|------|------|-------|
| Wm. Bro. Leghorns, Anconas | 15 | 25 | 50 | 100 |
| Ed. Wm. Rocks, Wm. Wyand. | 1.75 | 2.50 | 4.25 | 9.00 |
| Red, Buff Orp., S. L. Wyand. | 2.00 | 2.75 | 5.25 | 9.75 |
| Jepp. Blk. Giants, Wm. Orp. | 2.50 | 3.50 | 6.75 | 13.00 |
| Light Mixed (Rocks) | 1.50 | 2.25 | 4.25 | 8.00 |
| Reds, Wyand. (Ck.) | 1.50 | 2.25 | 4.25 | 8.00 |

THE ADA BABY CHICK HATCHERY, R. 7, Ada, O.
Ref.—1st National Bank.

TAKE NOTICE 150,000 CHICKS

For delivery balance of season.

| | | | | |
|----------------------|------|------|-------|-------|
| S. C. White Leghorns | 15 | 25 | 50 | 100 |
| Tanred & Buff Str. | 2.50 | 4.50 | 8.00 | 15.00 |
| Barred Rocks & Heds. | 3.00 | 5.50 | 10.00 | 47.50 |
| Silver and Wyand. | 1.00 | 1.50 | 3.00 | 5.00 |
| Heavy Mixed | 2.50 | 4.50 | 8.00 | 32.50 |
| Assorted | 1.00 | 1.50 | 3.00 | 5.00 |

Hatched from carefully selected free range flocks. Order from this ad or write for circular. 100% prepaid delivery guaranteed.

THE RICHFIELD HATCHERY
Box 35, Richfield, Penna.

100,000 Big, Strong, Vigorous Chicks

Hatched by men with 20 years' experience.

| | |
|------------------------------------|-------------|
| Tanred, Barron S. C. White Leghorn | 9 cts each |
| Everlay S. C. Brown Leghorn | 9 cts each |
| Barred Rocks | 13 cts each |
| S. C. R. L. Red | 13 cts each |
| S. C. Black Minorcas | 9 cts each |
| Heavy Mixed | 9 cts each |
| Light Mixed | 8 cts each |
| Light Mixed Broilers | 8 cts each |

Live delivery guaranteed. Circular Free.

THE PENNSYLVANIA HATCHERY, Liverpool, Pa.

Mountain Springs Chicks

Ship C. O. D.—10% On Orders.

245 to 270-Egg strain chicks. We have the improved English and Tanred White Leghorns. We breed them from two yearling heavy birds. Our own carefully selected eggs are used. \$7.00 per 100; \$32.50, 500; \$60.00, 1,000.

MOUNTAIN SPRINGS POULTRY FARM

J. W. Amig, Prop., Star Route, Richfield, Pa.

June, July, August Chicks, 6c up

| | | | | |
|--------------------------------|------|------|-------|-------|
| Wm. B. Bu. and Br. Leg. | 25 | 50 | 100 | 500 |
| White, Buff Orp., S. L. Wyand. | 1.25 | 2.00 | 4.00 | 12.50 |
| Heavy Mixed | 2.50 | 5.00 | 10.00 | 44 |
| Light Broilers | 2.50 | 5.00 | 10.00 | 39 |
| Light Broilers | 1.75 | 3.50 | 6.00 | 30 |

Twenty-four year catalogue free. 100% delivery.

JOHNSON'S HATCHERY, Ickesburg, Pa.

COCOLAMUS HUSKY CHICKS

| | | | | |
|--------------------------------|------|------|------|-------|
| Tanred Strain White Leghorn | 25 | 50 | 100 | 500 |
| Large Fertilized—S. C. W. Leg. | 1.25 | 2.50 | 5.00 | 12.50 |
| Barred Rocks | 2.50 | 4.50 | 8.00 | 15.00 |
| S. C. R. L. Red | 3.00 | 5.00 | 9.00 | 18.00 |
| Light Mixed | 2.25 | 4.00 | 7.00 | 14.00 |
| Heavy Mixed | 2.50 | 4.50 | 8.00 | 15.00 |

100% live delivery guaranteed. Tare not paid.

COCOLAMUS POULTRY FARM, Cocolamus, Pa.

CHICKS PURE CASH OR C. O. D.

| | | | | |
|--------------------------------|------|------|------|-------|
| Panama Tanred—S. C. W. Leg. | 1.25 | 2.50 | 5.00 | 12.50 |
| Large Fertilized—S. C. W. Leg. | 1.25 | 2.50 | 5.00 | 12.50 |
| Barred Rocks | 2.50 | 4.50 | 8.00 | 15.00 |
| Light Mixed | 2.25 | 4.00 | 7.00 | 14.00 |
| Heavy Mixed | 2.50 | 4.50 | 8.00 | 15.00 |

100% live delivery guaranteed. Tare not paid.

TWIN HATCHERY, McAllisterville, Pa.

QUALITY CHICKS AT LOW PRICES

| | | |
|--|--------|---------|
| Cash or C. O. D. Tanred in lots of 100 | 100 | 500 |
| United Strain Leghorns | \$7.50 | \$36.00 |
| Barron or Wyand. Leghorns | 9.00 | 42.00 |
| Special Leghorns, Wyckoff only | 9.00 | 42.00 |
| Barred Rocks | 9.00 | 42.00 |
| Mixed Chicks | 8.00 | 38.00 |

L. E. STRAWSER, Box 30, McAllisterville, Pa.

QUALITY CHICKS

| | | |
|---------------------|------|---------|
| Tanred Str. W. Leg. | 7.00 | per 100 |
| Barred Rocks | 9.00 | per 100 |
| S. C. R. L. Red | 9.00 | per 100 |
| Heavy Mixed | 8.00 | per 100 |
| Light Mixed | 8.00 | per 100 |

100% live delivery guaranteed. Order from this ad or write for free circular.

C. P. LEISTER, Box P, McAllisterville, Pa.

BABY CHICKS

| | | | |
|-------------------|--------|--------|--------|
| Barred Rocks | 25 | 50 | 100 |
| S. C. R. L. Red | \$2.75 | \$5.00 | \$9.00 |
| S. C. W. Leghorns | 2.75 | 5.00 | 9.00 |
| Heavy Mixed | 2.50 | 4.50 | 8.00 |
| Light Mixed | 2.50 | 4.50 | 8.00 |

500 Lots 1/2 less. 1000 Lots 1/3 less.

R. N. LAUVER, McAllisterville, Pa.

CHICKS

| | | | |
|--------------------|------|------|-------|
| Will Ship C. O. D. | 25 | 50 | 100 |
| S. C. R. L. Red | 2.50 | 4.50 | 8.00 |
| Barred Rocks | 3.00 | 5.50 | 10.00 |
| Light Mixed | 2.50 | 4.50 | 8.00 |
| Heavy Mixed | 2.50 | 4.50 | 8.00 |

500 lots 1/2 less. 1000 lots 1/3 less.

W. A. LAUVER, Box F, McAllisterville, Pa.

QUALITY CHICKS

| | | |
|----------------|----|---------|
| Barred Rocks | 15 | per 100 |
| Heavy Mixed | 15 | per 100 |
| Light Mixed | 15 | per 100 |
| White Leghorns | 15 | per 100 |

Write for reduced prices on 500 & 1,000 lots. C. O. D. Postage paid. 100% live arrival.

J. A. Baumgardner, Beaver Springs, Pa.

Day Old Chicks—Pullets

Gasson's Large Type S. C. White Leghorns. Delivered up to 500 each. Baby chicks, cockerels and 10-week-old pullets for sale. Write Gasson's Poultry Farm, Box 15, Versailles, Ohio.

CHICKS

| | | |
|----------------|----|---------|
| Barred Rocks | 15 | per 100 |
| Heavy Mixed | 15 | per 100 |
| Light Mixed | 15 | per 100 |
| White Leghorns | 15 | per 100 |

Write to LAYWELL FARM, R. 3, Beaver Springs, Pa.

MORE PROFIT With OVERSIZE CHICKS

These chicks are all guaranteed from pure-bred flocks of the world's finest bloodlines. Specially bred and cultured to grow larger, mature quicker and lay better. These special prices are made to introduce Sieb's "Oversize" chicks to new customers. We can ship 100 or 10,000 on shortest possible notice and they will all be one grade only. The Best.

Our Finest CHICKS 6c Up

100 Per Cent Live Delivery GUARANTEED—PRICES PREPAID.

| | | | | |
|------------------------------|--------|--------|---------|---------|
| Light Assorted | 50 | 100 | 500 | 1,000 |
| Light Assorted | \$3.50 | \$6.00 | \$25.75 | \$55.00 |
| White Leghorns, Heavy Ass'd. | 4.00 | 7.00 | 33.75 | 65.00 |
| Brown, Buff Leghorns | 4.25 | 7.50 | 36.00 | 70.00 |
| Assorted | 4.50 | 7.75 | 37.50 | 72.50 |
| Brd., White, Buff Rocks | 4.50 | 8.00 | 38.75 | 75.00 |
| S. C. Rocks, Wm. Wyandottes | 5.00 | 9.00 | 43.75 | 85.00 |
| White, Buff Orpingtons | 5.00 | 9.00 | 43.75 | 85.00 |
| White, Buff Min. | 5.50 | 10.00 | 48.75 | 95.00 |
| Silver L. Wyandottes | 5.50 | 10.00 | 48.75 | 95.00 |

SIEB'S HATCHERY, Box 336, LINCOLN, ILL.
Member 1st & 2d N. C. P. Association

20th CENTURY "MARVEL" CHICKS

Big Type Imported Barron (English) S. C. White Leghorns

DIG LAYERS. Four chicks for this very Special Mating result of YEARLING HENS carefully selected in an English Poultryman. These hens weigh not less than 4 1/2 pounds, and up to 6 pounds. They produce better than 2 1/2 eggs per year, per hen, imported from TQM HATCHERY of England.

Customers Get Premium Prices for Their Big Eggs from "Marvel" Pullets

Thousands of Pleased Customers can tell you about the husky chicks and wonderful profits made by our High Class, Heavy Laying, Standard Red Wyandottes for 20 years. They fall and winter production is not unusual. Look at these few prices—100% live arrival. Guaranteed—your water order from this advertisement.

PRICES EFFECTIVE JUNE 2nd.

| | | | | |
|------------------------------------|--------|--------|---------|---------|
| S. C. White Leghorns, Anconas | \$4.50 | \$8.00 | \$38.00 | \$75.00 |
| S. C. White Leghorns, Buff Orp. | 5.00 | 9.00 | 43.75 | 85.00 |
| Barred & Wm. Rocks, S.C.A.R.C. Red | 5.00 | 9.00 | 43.75 | 85.00 |
| Barred & Wm. Rocks, S.C.A.R.C. Red | 5.00 | 9.00 | 43.75 | 85.00 |
| Barred & Wm. Rocks, S.C.A.R.C. Red | 5.00 | 9.00 | 43.75 | 85.00 |

20th CENTURY HATCHERY, Box Y, NEW WASHINGTON, OHIO

Reduced Prices on "Good Luck" Chicks

Rock bottom prices May 13 to August 1st

| | | | | | |
|-----------------------------|--------|--------|--------|---------|---------|
| White, Brown, Buff Leghorns | 25 | 50 | 100 | 500 | 1,000 |
| White, Brown, Buff Leghorns | \$2.50 | \$4.75 | \$9.50 | \$25.00 | \$40.00 |
| White, Brown, Buff Leghorns | 2.25 | 4.25 | 8.50 | 21.00 | 35.00 |
| White, Brown, Buff Leghorns | 2.25 | 4.25 | 8.50 | 21.00 | 35.00 |
| White, Brown, Buff Leghorns | 2.25 | 4.25 | 8.50 | 21.00 | 35.00 |

NEUHAUSER POULTRY FARM & HATCHERIES, Dept. 6, Napoleon, Ohio

FOR YEARS WE HAVE HATCHED AND SOLD SATISFACTORY CHICKS

Free Catalogue. 100% Delivery Guaranteed. Effective June 18th.

| | | | | | |
|------------------------------|--------|--------|--------|---------|---------|
| White, Brown & Buff Leghorns | \$3.00 | \$4.50 | \$9.50 | \$40.00 | \$75.00 |
| White, Brown & Buff Leghorns | 3.50 | 5.50 | 10.00 | 48.00 | 85.00 |
| White, Brown & Buff Leghorns | 3.50 | 5.50 | 10.00 | 48.00 | 85.00 |
| White, Brown & Buff Leghorns | 3.50 | 5.50 | 10.00 | 48.00 | 85.00 |
| White, Brown & Buff Leghorns | 3.50 | 5.50 | 10.00 | 48.00 | 85.00 |

LOOK AT THESE BABY CHICK PRICES

WOLF'S UTILITY PRICES—SEND \$1.00—BALANCE C. O. D.

| | | | | | |
|------------------|--------|--------|--------|---------|-------|
| S. C. W. Leghorn | 25 | 50 | 100 | 500 | 1,000 |
| S. C. W. Leghorn | \$2.25 | \$4.00 | \$7.50 | \$32.50 | \$70 |
| S. C. W. Leghorn | 2.25 | 4.00 | 7.50 | 32.50 | 70 |
| S. C. W. Leghorn | 2.25 | 4.00 | 7.50 | 32.50 | 70 |
| S. C. W. Leghorn | 2.25 | 4.00 | 7.50 | 32.50 | 70 |

BUY EASTERN QUALITY-PLUS BABY CHICKS

BIG HATCHES JULY 1-15-1930. CAN SHIP C. O. D. Per 50 100 500 1,000

| | | | | |
|--------------|--------|--------|------|------|
| Barred Rocks | \$4.00 | \$7.20 | \$37 | \$21 |
| Barred Rocks | 4.00 | 7.20 | 37 | 21 |
| Barred Rocks | 4.00 | 7.20 | 37 | 21 |
| Barred Rocks | 4.00 | 7.20 | 37 | 21 |
| Barred Rocks | 4.00 | 7.20 | 37 | 21 |

GREEN FOREST HUSKY CHICKS

CASH or C. O. D. PRICES FOR JUNE and JULY

| | | | |
|----------------------------|--------|--------|--------|
| English and Tanred strains | \$2.25 | \$4.00 | \$7.00 |
| S. C. White Leghorns | 2.25 | 4.00 | 7.00 |
| S. C. White Leghorns | 2.25 | 4.00 | 7.00 |
| S. C. White Leghorns | 2.25 | 4.00 | 7.00 |
| S. C. White Leghorns | 2.25 | 4.00 | 7.00 |

BETTER BABY CHICKS

Ship C. O. D.

| | | | | | |
|------------------|--------|--------|--------|---------|-------|
| S. C. W. Leghorn | 25 | 50 | 100 | 500 | 1,000 |
| S. C. W. Leghorn | \$2.50 | \$4.00 | \$7.50 | \$35.00 | \$70 |
| S. C. W. Leghorn | 2.50 | 4.00 | 7.50 | 35.00 | 70 |
| S. C. W. Leghorn | 2.50 | 4.00 | 7.50 | 35.00 | 70 |
| S. C. W. Leghorn | 2.50 | 4.00 | 7.50 | 35.00 | 70 |

GREEN FOREST POULTRY FARM

N. J. Amig, Prop., Star Route, Box 1, Richfield, Pa.

BABY CHICKS SUMMER PRICES ORDER NOW

| | | | |
|--------------------------------|--------|--------|--------|
| S. C. White and Brown Leghorns | 25 | 50 | 100 |
| S. C. White and Brown Leghorns | \$2.75 | \$5.00 | \$9.00 |
| S. C. White and Brown Leghorns | 2.75 | 5.00 | 9.00 |
| S. C. White and Brown Leghorns | 2.75 | 5.00 | 9.00 |
| S. C. White and Brown Leghorns | 2.75 | 5.00 | 9.00 |

HILLSIDE CHICKS with ship C. O. D.

| | | | |
|-------------------|--------|---------|---------|
| Tanred Strain | 100 | 500 | 1,000 |
| S. C. W. Leghorns | \$2.00 | \$32.50 | \$70.00 |
| S. C. W. Leghorns | 2.00 | 32.50 | 70.00 |
| S. C. W. Leghorns | 2.00 | 32.50 | 70.00 |
| S. C. W. Leghorns | 2.00 | 32.50 | 70.00 |

SUMMER CHICKS OF BEST QUALITY

Postage paid and live arrival guaranteed. Summer chicks are best for profitable broilers, winter meat and spring and rear the broilers. Mature broilers at right prices. 40 breeds to offer. Catalog Free.

NABOB HATCHERIES, Box 22, GAMBIER, OHIO

BABY CHICKS C.O.D.

Send no money. Just mail your order. We ship C. O. D., and guarantee live delivery of chicks. From pure-bred inspected and culled flocks.

| | | | |
|------------------------|--------|--------|--------|
| S. C. W. & B. Leghorns | 25 | 50 | 100 |
| S. C. W. & B. Leghorns | \$2.50 | \$4.00 | \$7.50 |
| S. C. W. & B. Leghorns | 2.50 | 4.00 | 7.50 |
| S. C. W. & B. Leghorns | 2.50 | 4.00 | 7.50 |
| S. C. W. & B. Leghorns | 2.50 | 4.00 | 7.50 |

BABY CHICKS

From Heavy Laying Range Flocks

| | | | | | |
|--------------------|--------|--------|--------|---------|-------|
| Wick & Tanred Str. | 25 | 50 | 100 | 500 | 1,000 |
| Wick & Tanred Str. | \$2.50 | \$4.00 | \$7.50 | \$32.50 | \$70 |
| Wick & Tanred Str. | 2.50 | 4.00 | 7.50 | 32.50 | 70 |
| Wick & Tanred Str. | 2.50 | 4.00 | 7.50 | 32.50 | 70 |
| Wick & Tanred Str. | 2.50 | 4.00 | 7.50 | 32.50 | 70 |

STOP! LOOK! LISTEN!

CASH or C. O. D.

| | | | | | |
|----------------------|--------|--------|---------|---------|-------|
| Wm. Wyand. (Hatched) | 25 | 50 | 100 | 500 | 1,000 |
| Wm. Wyand. (Hatched) | \$3.50 | \$6.00 | \$12.00 | \$27.50 | \$50 |
| Wm. Wyand. (Hatched) | 3.50 | 6.00 | 12.00 | 27.50 | 50 |
| Wm. Wyand. (Hatched) | 3.50 | 6.00 | 12.00 | 27.50 | 50 |
| Wm. Wyand. (Hatched) | 3.50 | 6.00 | 12.00 | 27.50 | 50 |

40,000 Chicks WEEKLY

Hatched from free range broilers, which have been raised by a State College Graduate.

| | | | |
|--------------------|----|----|-----|
| Barred Rocks & Red | 25 | 50 | 100 |
|--------------------|----|----|-----|

The Story of Woodbine Farm

By W. D. ZINN
(Continued from last week.)

DOWN TO THE PRICE OF WOOD!

The man who introduced concrete stave silos into the East, and worked with them to the present day, offers the results of his experience in a much improved concrete silo. Geo. E. Priest's Reinforced Concrete Stave Silo has these advantages:

LOWEST PRICES—no more than many wood silos, delivery and erection included. PERMANENCE—QUICK ERECTION—LIBERAL DISCOUNTS—Send to us for a booklet describing the Priest Silo Improvements in detail.

PRIEST CONCRETE CORP.

201 MERCER BLDG.
SYRACUSE, N. Y.

ARKADY

Wonder FEEDS

Cows and poultry, horses and hogs do better on R-K-D Wonder Feeds. Your dealer carries them. See him today or write us direct.

ARKADY FARMS
MILLING COMPANY
52 Brooks Building
CHICAGO, ILLINOIS

FREE WRITE TODAY for FREE POULTRY and DAIRY BOOKS

WHY...of all SILO FILLERS Bought in Wisconsin 40% are GEHLS

Wisconsin dairymen, owning 20% of the silos of the whole U. S., appreciate the GEHL cutter's exceptionally superior points, including its big capacity at low speed, light running and clean cutting due to narrow, of knives, rollers, feeders, and delivery chutes. GEHL silos are built with a 40% GEHL cutter attachment. GEHL silos are built with a 40% GEHL cutter attachment. GEHL silos are built with a 40% GEHL cutter attachment.

Power Cost as Low as \$1.75 per ton. GEHL BROS. MFG. CO., 428 South Water St., West Bend, Wisconsin.

Get Rid of CANADA THISTLES

The Little Wonder Weed Destroyer will positively destroy them.

A spraying solution (not a chlorate) costs only 6c per gallon; will not burn the soil nor kill cattle. Write for free illustrated leaflet.

REBER CHEMICAL COMPANY Reading, Pa.

ON account of the failing health of my wife we were forced to leave the farm on the first day of November, 1920. The following winter was spent with our daughter in Ohio, but the author spent most of his time in institute work out in the state. In the spring we came back to Philippi, W. Va., and spent the summer there, living in town in rented rooms. Being scheduled for most of the winter in institute work we returned to Ohio in the fall of 1921 and again had a pleasant winter with our daughter.

We rented our farms to Mr. M. J. Morrison on a fifty-fifty basis. In the contract I reserved the right to share in the general supervision of them. In order to maintain their productivity I specified that certain rotations were to be practiced and certain amounts of fertilizers were to be applied, and I want to say here that in all the eight years the farms were rented there was never a disagreement as to their management. I was never out of touch with the farms and visited them frequently.

We kept pure-bred Angus cattle, and it was a real pleasure to go among the herds and watch them develop, but in 1921 we paid rather dearly for the pleasure. Our invoice showed that we had a loss of over three thousand dollars that year. There was quite a temptation to quit the business, but we were unable to stop and it would have been a great mistake to have done so. No matter what one's business is there will be lean years, and he is most successful who takes the bitter with the sweet and sticks to the occupation that he has chosen.

Dividends on Homes

After returning from Ohio each spring it was a real satisfaction to plunge again into business and assist in the active management of the farms. But it was a satisfaction equally great to lay aside the work in the fall and take up the task of speaking to the farmers in Ohio. Variety is said to be the spice of life.

The late F. L. Allen was the supervisor of the institutes in Ohio and it was always a great pleasure to work for him. I am sure that I voice the sentiment of every institute speaker in Ohio when I say that no state ever had a more faithful, efficient and unflinching leader. The state suffered a very great loss when he was called to his reward.

We could not become accustomed to paying rent. Many people do this all their lives, but they must be differently constituted. Each season we chafed more and more under it. During the summer of 1922 we purchased a lot on Main Street in Philippi and let the contract for the erection of a comfortable and modern house. It is of the bungalow style, has five rooms, a bath and two halls on the first floor, and three rooms, a bath and a hall on the second floor with a basement under the entire building and a vegetable cellar under the porch. The building has a wooden frame with brick veneering and this causes the house to be warm in the winter and cool in the summer.

The contractor suggested that it was unnecessary to put two baths in so small a house, but time and usage have proved that he was wrong and we have been glad that the second bath was installed.

My wife and I spent eight very happy years in this home and I am glad to say that we did it as we did. On February 2nd, 1929, she was taken to her reward and will occupy a house "not built with bricks." One of my pleasant memories is that during the last twenty-five years of her life she had two modern homes and was happy in them.

Some people say that the money we

put in houses we are to occupy will never pay us any dividends. That is true if money is the only dividend, but it is not true in respect to happiness, and who receives more and greater dividends than he who leads a happy and useful life?

Before we started the erection of the house on the farm or the one in town we had the money laid aside to pay for it. We make no mistake in providing ourselves with comfortable homes if in the building we do not embarrass ourselves financially. Had we continued to live in the old house on the farm and rented a house in town we probably would have had more money, but that money would have been of no benefit to the one who is no more. Invested in a suitable and convenient home she did get a lot of pleasure out of it.

Too Much Land

On the 10th day of January, 1929, Woodbine Farm was sold for \$25,000 cash or its equivalent. Included in this sale was a team and farm machinery worth probably \$1,000. Had we sold the farm before we left it, no doubt it would have been harder to give it up, but having moved away with no intention of ever moving back we could see it pass out of our hands much more easily. I asked a good friend what he thought of my selling Woodbine. "It is all right if you can be satisfied," was his answer. I had considered that very carefully before I made the sale and decided I would be satisfied, and thus I have not grieved over it since it was sold. I had come to a time in life when I was unable to do much active work on the farm. Besides, I do not believe that any one should work very hard in old age if he has been frugal and has laid by enough to keep him and his family, and this we had done. Note I say "we," for my departed wife had done more than her share in the "laying-by."

I am often asked whether I would pursue the same course had I my life to live over, and I always answer in the negative. Not that I have any serious regrets for having led the life I have. While I have been fairly successful many others have had much greater success in the same time. I made the very common mistake of buying too much land and spending the best of my life in paying for it. Had I been content with the ninety-three acres in Woodbine farm I could have made it more productive and attractive and by doing the latter I would have added to the happiness of my companion and would have had more time to give to her and others.

For thirty-five years I never had a dollar that I really felt was my own, for in all that period I owed more money than I ever had at any one time. Every one should strive, and that very hard, to acquire a competence; but after the competence has been gained the big thing in life is to render service to humanity, and being pressed all the time with debt one does not have the time and often not the inclination to be helpful.

We did not stop buying land until we had 620 acres and for a few years we owned 920. We had an opportunity to use all our energy on Woodbine, and possibly by concentrating our efforts might have accomplished much more. I wish to make clear, however, that not an acre of land was purchased without the approval of my wife. Why should I purchase land to pay for which she would have to have lived without her "rent"? The idea of farming today is that it is able to cultivate it properly. I once knew a farmer who owned 5,500 acres of land and the regret of his life seemed to be that he did not buy much more land while it was cheap.

(To be continued.)

BIGGER SUMMER MILK CHECKS with B-B 20% Hi-Test Dairy Feed

WITH green pastures, cows need a balanced ration for top-notch milk production. And with pastures slowly drying up, they need it more than ever.

Feed B-B Hi-Test Dairy Feed now. This economical 20% protein feed contains the right variety of minerals, vitamins and other needed milk producing ingredients. B-B Red-E-Mix is another excellent 20% dairy feed for summer use.

We Guarantee Most Production

The perfect balance of these feeds insures a longer lactation period and perfect physical condition. Feeding it now means maximum production both now and later on.

We guarantee B-B Dairy Feeds most productive per dollar of feed cost—or money back.

Maritime Milling Co., Inc. Buffalo, N. Y.

BULL BRAND FEEDS DAIRY AND POULTRY

THE UNADILLA is the most practical silo

It represents the highest development in wood stave silos. Cures and keeps silage perfectly. Provides greatest safety and convenience in use. Gives owners largest return on their money.

Send for free catalog and get about silos for cows and early orders. Time payments if desired. Also lists of silos, tanks, vats.

UNADILLA SILO CO. Box P Unadilla, N. Y.

Keep Your Horses Sound

A horse free from lameness and going sound is more valuable and works better. Absorbine has been used successfully since 1892 for reducing lameness and swelling without blistering or removing the hair. Horse can be worked on the same day.

60¢ in drug stores, or postpaid. Horse shoe 5¢ free.

W. F. YOUNG, INC. 354 E. Main St., Springfield, Mass.

Cow Feed 80.00 per Ton with PHILADELPHIA SILOS In Wood-Concrete-Tile. Free Catalogue. Special Prices Now. E. F. SCHLICHTER CO., 10 S. 10th St., Phila., Pa. Tel. 5-1000. Branch Office: 1000 E. 10th St., Erie, Pa.

STOP WASTING FEED! Buy a Little Wonder Weed Destroyer. It will kill all weeds and grasses in your feed lot. It is safe for your stock and will not harm the soil. Write for free illustrated leaflet.

THE MARKOV CO. (D. M. Silo & Mfg. Co.) 123 E. 1st St., Ave. 1, Erie, Pa.

Farm and Dairy

By L. W. LIGHTY

ALL silos need some annual attention. Brick, tile and concrete become rough and often faults appear in the wall that allow the air to leak in. This must be prevented and the wall kept reasonably smooth.

My experience in helping to make all silo walls airproof convinced me that general rules will often not work in specific cases. An expert may be needed. To smooth walls and close small cracks I found nothing equal to cement mixed to a creamy consistency and applied with a brush.

The wall must be perfectly clean and moistened. The cement must be applied soon after it is mixed. In other days we applied a coat of gas tar. The only result was an awful bad smell and a black mess. Men of practical experience tell me if we use a good quality of asphaltum roofing paint we get good results.

Failures have been reported with the cement wash, but that was caused by putting the wash on too thick. I have waterproofed cisterns and silos in this way that gave good service for several years.

But the wooden silo wall needs treatment regularly for the most permanent and economical results. The outside wall surface should be kept painted with a good grade of barn paint. For the inside I never found anything equal to linseed oil applied when the wall is dry and well warmed up by the sun. The next best is common crude oil as it comes from the oil well. Several good applications of this surely preserve the wood.

Surface Cooler

"The temperature of my well water is 52 to 53 degrees and I pump it with a small engine. I use a corrugated surface cooler to pre-cool my milk. By pumping the water slowly through the cooler while the milk trickles over it I find the temperature of the milk as it goes into the can is sixty or below. I now place the can in a small tank with fresh pumped water in which I place a small quantity of ice. In a short time the milk is cooled to fifty or below. When I sell cream it is cooled the same way, only I chill it down to 45 or below. Pre-cooling it over the corrugated surface cooler saves me a lot of ice and time."

The above is part of a letter from a dairyman who also tells me he is trying to organize a cow-testing association and a bull club, neither of which he has any personal special need for, as he has a record of his cows and also has a pure-bred bull, but he is sure that if the farmers in his neighborhood would adopt more progressive methods he would be benefited, which is doubtless true.

Pasture Ten Days Earlier

From another letter I copy this: "At your suggestion I applied a light coat of manure and some lime and superphosphate to my pasture last summer. This spring my pasture was ready to turn in ten days earlier than usual and now it looks as though I would have twice as much feed as I ever had from this field."

Surely there is no lesson quite equal to personal experience.

In the Flower Garden

Much brings the snowdrops and tulips with a few others, and April brings the tulips and early iris with many others. The climax is reached by last week in May and the first two weeks in June.

Though we have iris by the tenth of April and peonies by the tenth of May the thousands and ten thousands come between the middle of May and the middle of June. Very often flowers are scarce by Decoration Day, but excessive warmth before the middle of May forced all growth and so this

year there was a wonderful abundance of flowers by May 30th.

The flower garden is as dependent on the weather conditions as is the vegetable garden or the field. A number of years' careful observation and a daily notation of weather conditions convince me that many varieties of iris and peonies as well as other perennials vary greatly because of weather variation.

I have an English origination, Lady Alexander Duff, that develops into an enormous and unmatched shell pink peony when we have cool and plenty of fog some ten days as the bud makes its last development. This was such a season and the block of Lady Alexander Duff topped everything for attraction in the garden of a few hundred varieties. Gigantic and glorious were common expressions.

Another variety originated on the western United States plains, Karl Rosenfeld, resents such English conditions and while usually one of the very finest reds it fails to show up real good this season. I might cite many examples just like these. They have inherited proclivities and characteristics that must be humored if we would get the best out of them.

Peonies and Dairy Cows

I cannot help but compare my peonies and their demands to my dairy cows of former days. The Channel Island cattle demanded Channel Island conditions if they were to do their best, while the Brown Swiss flourished on entirely different feed and treatment. While we cannot make the weather that suits our peonies we can with thought and effort closely approach either Channel Island conditions or Swiss conditions for our cattle.

I find my garden work fully as fascinating and interesting as I ever found the field and dairy barn work. Every year I have hundreds of new seedlings come forth. While many are worthless a few are improvements and once in a while comes something outstanding, something entirely different, something that brings a great thrill. I have no quarrel with the professional hybridizer, as he doubtless knows what he is doing, but I have proved and so have many others that selected seed, though produced under chance fertilization will rather often bring prize winners.

New and Improved Varieties

We have some very unusual and beautiful seedlings in the iris and peonies really different from varieties now under cultivation, but occasionally things happen that are very puzzling. We grew the rather old orange and pink oriental poppies for some years, but suddenly a seedling appeared giving us very brilliant rich scarlet blooms of extraordinary size. That made us marvel, because nothing in that color was ever grown on that ground. But a little later came the climax in Oriental poppy colors.

A chance seedling sprang up and when the large bloom opened it was a rich dark red maroon color with silky black markings on the base of the petals, while the petals themselves were very beautifully crinkled and ruffled. The stamens in a great circular mass are rich steel gray color and the pistil is a satiny garnet, making a combination that is gorgeous beyond words. But the great question is: where did it come from? Of course from a seed, but there were no seeds except from the orange and pink.

Indeed what we do not know might make many books, yet possibly a brief explanation might suffice. After all it is not possible that man has dominion to bring his ideal into manifestation? To me it seems we have plenty of proof of this in the animal, vegetable and the inorganic world.

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DAIRY CATTLE

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at Farm, W. S. Billick, Elizabeth, Pa.
35 PURE-BRED GUERNSEYS 35
COWS AND HEIFERS, 4 BULLS.
FULLY ACCREDITED HERDS
Use Thorough, Early Tractor, Union Leader
Stayer, 12 complete Janeway Shells, Full line
farm equipment, almost new, Purebred Dan
Bacon breeding lots, two steel feeder houses.
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and others, all of above Guernseys.
W. S. BILLICK, Owner, Elizabeth, Pa.
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aged from 1 to 3 months. Excellent type. Solid
color, straight backs, long and deep bodied. All
out of Register of Merit dams and sired by good
24 butter fat. One of old Bull's Guernsey. Priced at \$50.00
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REG. JERSEY BULLS, ready for service. Bull
calves, also heifers. Accredited Herd
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for long, smooth, farrow, spring pigs. Best blood
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QUALITY CHESTER WHITE, 100% gilt, gilts
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POLAND-CHINAS of approved blood lines, best
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REGISTERED HEREFORDS. A select herd of the
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Hereford cattle. Poland China Hogs. Hampshire
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FINING SHORTHORN 100% pure 2 years old
and also a few weanling Poland a red and
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Angus Cattle. At reasonable
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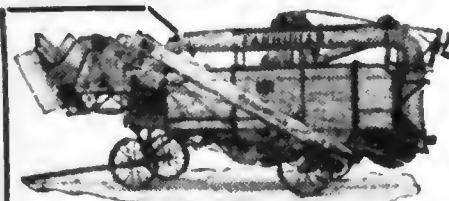
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Truck Crops

By GILBERT S. WATTS

ALTHOUGH the local strawberry crop is smaller than normal, unexpected heavy pickings at the end of last week resulted in surprisingly low prices late Saturday in the market houses. The public simply was not aware of the fact that home grown berries were available in abundance.

If the local berry growers coming into the markets of our small and medium sized cities could find a way to band together and advertise just as pickings become heavy demand unquestionably would be speeded up and to some extent focused on the period of peak harvesting. At least my own experience in advertising for my roadside market indicates that there are large possibilities in this connection.

Another factor in realizing largest returns from berries is to control pickings so that those made at the last of the week are not disproportionately large. It is our policy, since we do not pick on Sunday, to gather only the berries that are ripest on Monday. Tuesday we pick a little more closely. By Friday we take everything that is ripe enough to satisfy the trade. Thus daily totals are held at a fairly even level and we seldom are confronted with difficult surplus Saturday.

The Market Growers' Journal has pointed out that the price index for fertilizer nitrogen stands at 71 per cent of the 1910 to 1914 level whereas crop prices stand at 141 per cent and farm labor at 175 per cent. That makes it look like questionable business to let intensive crops that require much costly labor go the least bit hungry for nitrogen.

It is much easier to keep blight from getting a bad start in the celery. Thorough spraying with 5-5-50 Bordeaux at weekly intervals is both preventative and cure.

If the new shoots of black raspberries, the ones that will bear next year's crop, are pinched back as soon as they grow waist high both stocky growth and branching will be induced. Thus the necessity for trellising or staking will be eliminated.

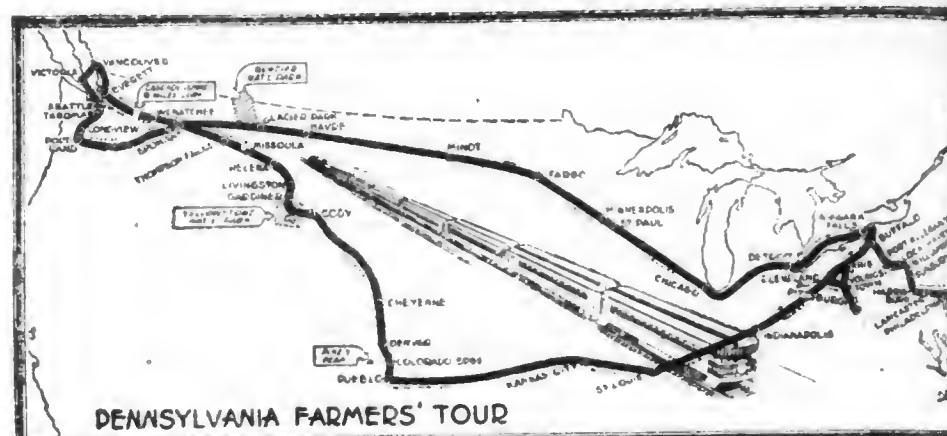
Staked tomatoes produce the finest fruit when trained to a single stem. This is done by pinching out all laterals and tying the "leader" or main stem to a stake. It is important, as a means of conserving the strength of the plants, to remove laterals while they are very small, preferably not over an inch long. Stake tomatoes so trained may be set as close as eighteen inches by three feet.

Propose Grades for Milk

(Continued from page 5.)
Agriculture, the Department of Health, and other similar agencies. This Conference Board approved the recommendations of the dairymen and supported them at a public hearing held at the State House on May 6, 1930.

It is proposed to make these grades a part of the State Sanitary Code and negotiations are now under way to that end. Whatever may be the final outcome, there are two important developments that are worthy of note. The first is that the farmers of the state have recognized the importance of putting their own industry on a sound economic basis and have taken the initiative in this most important, though difficult, field. The second factor that has been developed is the unity of interest that prevails, although it is sometimes clouded with prejudice, among producers, distributors and consumers. The constructive efforts of the dairymen along these lines have met with interest and support from nearly all other agencies engaged in any phase of the milk industry. These two factors are certain to prove of lasting benefit to the dairy industry of the state.

The Cost is LOW So All can GO On This Wonderful Trip



On the PENNSYLVANIA FARMER Tour

to Glacier National Park, the Pacific Northwest and Yellowstone

PLAN NOW the pleasure trip of your lifetime—a vacation treat for yourself and family. Go on the wonderful, educational sight-seeing Pennsylvania Farmer Tour to the great Glacier National Park, the Pacific Northwest, wondrous Yellowstone Park and cool colorful Colorado, at a cost lower than you ever imagined!

This tour is offered you through the cooperation of the Pennsylvania Farmer and five of America's greatest railroads. It's a trip you'll always remember and it takes place just when you can best get away—July 26 to August 10.

2 Weeks of Joyous Travel

Picture a place where Nature has done one of her most lavish pieces of handiwork and where man has created the world's finest resorts—that's the Pacific Northwest and it is calling you this year.

You travel on all-Pullman trains with every comfort and convenience possible to give you. You visit the last home of a vanishing race—the reservation of the Blackfoot Indians—Glacier National Park with its riot of color and awe-inspiring greatness. You travel on the Pacific Ocean by C. P. Steamer from Vancouver to Seattle, stopping off at Victoria. You gain intimate knowledge of the Northwest's cities, and view the scenic grandeur of famous Yellowstone National Park.

Mighty forests, lofty waterfalls, towering mountain ranges await you all the way. Auto sight-seeing side trips make every day more interesting. Let's go!

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Please mail me at once your free book telling all about your tour to the Pacific Northwest, Yellowstone and Colorado Rockies.

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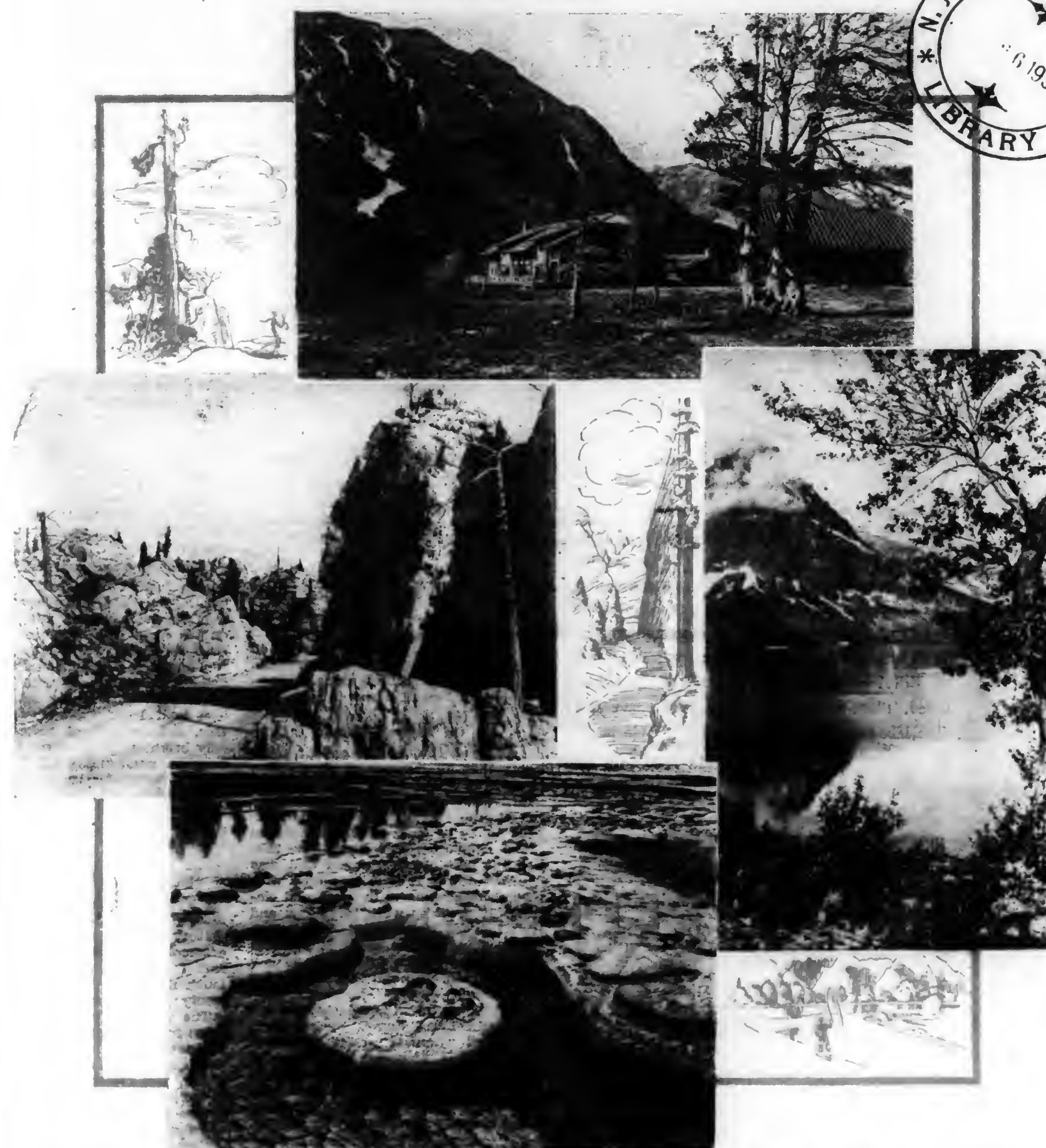
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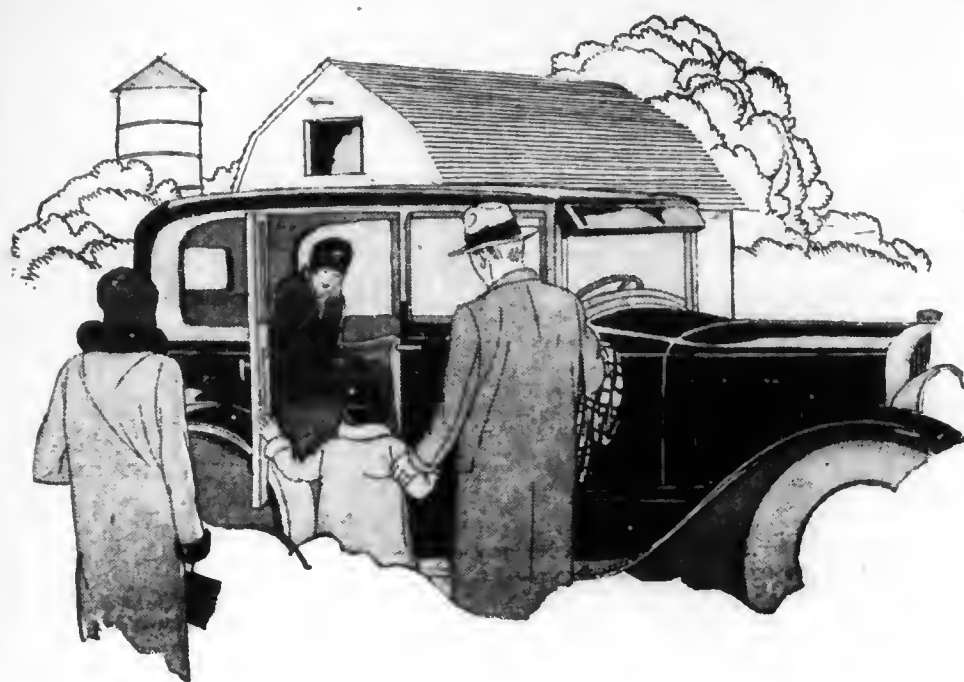


Sights to be seen by members of the Pennsylvania Farmer Pacific Northwest Tour, July 26 to August 10. Top, Two Medicine Chalet and Rising Wolf Mountain; right, Mt. Rockwell; both in Glacier Park, Montana. Left, the Hoodo Rocks or Silver Gate; below, the Wedding Cake in the pool of Fountain Geyser; both in Yellowstone Park. See Page 8 for Tour Map.

Philadelphia

Pittsburgh

Harrisburg

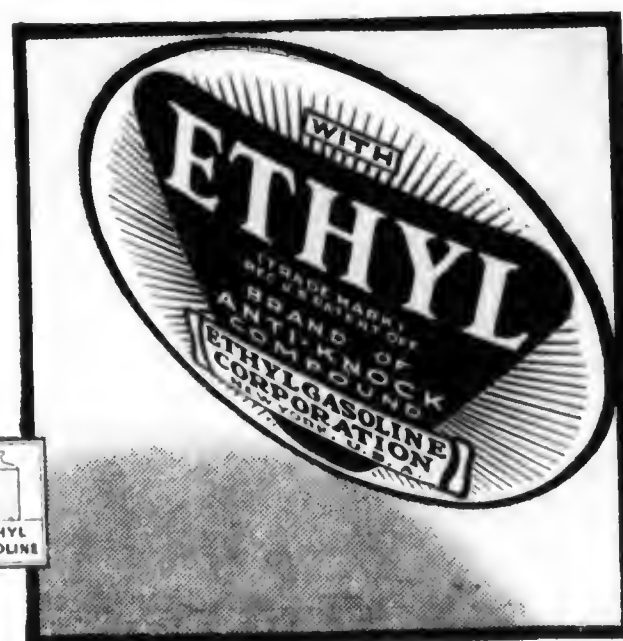


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WHEN the day's work is done and you drive to town to the movies or to shop, you get there quicker and easier with Ethyl in your tank. That is because Ethyl Gasoline is gasoline *plus*. It is good gasoline to which leading oil companies are adding Ethyl fluid, the anti-knock compound developed by General Motors Research Laboratories to improve motor car performance.

In your passenger car, your tractor or truck, Ethyl gives you extra power, quicker pick-up, and lessens gear shifting. You cover more ground in a day, there is less wear and tear on your engine, fewer repair bills and slower depreciation. Time and money are saved, and it is easier on engine and driver when you are using Ethyl Gasoline.

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The active ingredient used in Ethyl fluid is lead.

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ETHYL GASOLINE

Farm Facts and Fancies

By ALVA AGEE

A KANSAS farmer tells me that his acreage of wheat must be kept big to hold down the expense per acre when money is invested in a combine. After charging off for use of the engine on the corn crop and some winter work on feed and wood he figures that he must seed five hundred acres to wheat to get a satisfactory return on investment in the harvesting outfit. That is his figuring, and of course I know nothing of its correctness, but the thing interesting me is this broad influence to extend acreage so that modern costly equipment may not lie idle more than is necessary.

More and more these grain farmers have the point of view of the manufacturer who knows how costly it is to shut down when prices are low and rather inclines to increase efficiency, have a greater output and spread costs over a larger amount of goods marketed. Certainly the introduction of better farm equipment every year increases the production of all kinds of grain, and this is aside from the great area in newer farming sections that can yield some profit from relatively small yields per acre through the use of tractors and big seeding and harvesting machines. While the Farm Board figures, these men go ahead and plant.

The Inevitable

Oil, copper, sugar—these three commodities have a great excess of potential production, and permanent control is not a reasonable thing to expect. New bodies of oil continually are found. There is a great amount of copper ore accessible. Cheap labor lets foreign countries pile up beet and other sugar. Now, there is a fourth product that belongs in this list, and well up to the head. That is wheat. It is easy to grow, it lends itself to the use of machinery in the highest degree, it is easily stored, it is a cash article.

Potential production is nearly beyond calculation now that modern equipment can be taken to regions where the crop would not be seeded if much human labor ran costs up. Yes, we do well to class wheat with oil and copper in our thinking. Of course there are best marketing methods for everything, and that includes wheat. But the possibility of price control and of much net profit from the crop in the United States fades more and more as time comes along. World overproduction of wheat is seemingly inevitable.

On Eastern Farms

And yet, it does not appear probable that all manner of competition can drive wheat out of its place on the farms east of the Mississippi river. It fits too exactly into farming plans for that. It makes a good yield on land after other plow crops have taken the best out of the sod that was turned down. It is a good crop with which to seed down to grass and clover. It provides work for teams and tractors at times when they otherwise would not be used. It provides straw, and be the price ever so low it is a cash crop and that counts for something.

Argue as we will, the chances are that wheat will stay in eastern farm rotations wherever so far it has fit nicely. The prospect of continuing low prices, excepting the normal ups and downs, is only another hardship that will be accepted because dropping the crop promises nothing better.

Actual Plant Food

I have a neighbor who clings to the idea that commercial fertilizers are only stimulants. Twenty years ago a considerable percentage of farmers held the same belief. It was worth while to convince my belated friend, and the means were simple enough. Some clean seashore sand had been put into pots, and in some of them rye was seeded without any fertilizer

In other pots a high-grade complete fertilizer was used at the rate of six hundred pounds per acre.

During the first three weeks the plants that had no fertilizer fed on the seed grains and made a fairly brave showing. Then they began to lose ground. The fertilized plants are making a thrifty growth and the contrast is surely striking. Now, there was little basis in that sand for any stimulation, and I called my neighbor over to see the growth in some pots many times greater than that in the others. It gave him faith for the time being.

Our Land Banks

I wish farmers were a unit in seeing that only close governmental supervision of our whole land-bank system can make money available to them at the lowest interest rate. It is only a sense of certainty about investments that makes people willing to accept a small return on their money. That is the reason government bonds carry so low a rate. Bonds of land bank banks would be marketed today at a lower rate, and money loaned on farms at a corresponding reduction, if government regulation had been so rigid that a few banks would not have got into difficulties.

The substance of the whole scheme lies in some approach in land banks to the safety of government bonds. Any step in that direction means less interest to be paid on mortgages. If supervision had been closer, the gap between rates on these two classes of bonds would not be as wide as it is today, but great good has been done, and especially in states that are remote from money centers and had high interest charges on farm loans.

We can go much further in reducing the rate on farm mortgages by increasing the certainty that investors in the untaxed bonds will not lose any of their capital. The system is in the interest of the farm debtor, and the rate he must pay in the future depends on such close governmental supervision that there will be a market for land bank bonds at low interest rates.

Reducing a Sense of Burden

If a farmer owes half what he is worth, he carries a heavy burden. What he needs is a low interest charge on the amount he owes, a certainty that the lender will let the mortgage run and a realization that the amount paid annually with the interest is gradually wiping out the debt. The land bank system provides this, and the outlook becomes decidedly brighter. If he owes more than half, he must make other provision for the remainder because the vital thing in the system is that the money loaned on the mortgage be secure that the bonds that produce the money carry a low interest rate.

New Bait Gets Beetles

AFTER two years of experimental work at the Japanese beetle laboratory at Moorestown, New Jersey, entomologists have developed a bait for Japanese beetles which is much more effective than that commonly used heretofore.

The formula for the new bait is as follows: four teaspoons of geraniol, one-half teaspoon of eugenol, one and one-half cups of bran, one tablespoon of water, two and one-half tablespoons of molasses and one and one-half spoons of glycerine. This makes about one-third of a pound.

Certain types of traps have been baited with this mixture and have held more than an ounce of beetles. The quantity of the attractive agents used in these traps are necessarily very small. The United States Department of Agriculture entomologists recommend for such traps the use of as much geraniol and eugenol to 25 grains of the plain bait as is recommended for the larger quantity.



On the HOTTEST DAY you may have COLD FURNISHED BY WIRE...

This refrigerator makes a saving in steps and food worth many dollars on a Pennsylvania farm

FARM women are again confronted with the hot weather problem of how to keep their food from spoiling. The electric refrigerator is the answer to this problem of how to keep the food constantly cold enough. Only those who have been confronted with this task for years and now enjoy the use of an electric refrigerator, can appreciate what it does.

Saving Thousands of Steps

On most farms the food must be taken to the spring house or cellar in an attempt to keep it from spoiling. This commonly means two trips before and after each meal or twelve round trips a day. If the spring house is 100 feet from the kitchen this would mean walking almost 15 miles per month or about 5 hours of solid trotting, chiefly by mother. Even at 30c per hour, which is too low, this would amount to \$1.50 worth of labor per month.

Dollars Worth of Food Saved

Primarily the electric household refrigerator was designed to save food and health, the saving of steps being only incidental. It has proven its worth for food preservation to such an extent that its use has swept over the country until there are now hundreds of thousands in use.

Farm housewives tell us they like the electric refrigerator because:

... It brings the cold to where the food is.

... It saves steps in taking the food to a cold place.

... It keeps the food in much better condition, maintaining a uniform temperature of 50° or less.

... The separate cold compartments provide ice and cool drinks for the hot days in the summer.

... No food is wasted by spoilage.

... They can save trips to market and buy at a lower price by purchasing in larger quantities perishable food that would otherwise spoil.

... They can prolong the season for use of home grown perishables, particularly berries and fruits.

In order to get the most satisfaction from electricity it is important to have an adequate wiring system with outlets placed conveniently for a washer, sweeper, iron, percolator, toaster, refrigerator, electric range, motors, etc., in addition to lights. We shall be glad to have a representative confer with you regarding how your wiring system should be laid out preliminary to securing bids from reliable contractors. There is no charge for this service.

... Of freedom from messed up floors in bringing ice from the ice house.

... They do not have to interfere with the men in their farm work to ice the refrigerator.

... The food looks tasty and is better when served.

Costs Little to Operate

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Mr. Frank L. Longstaff of Island Falls, Maine

Other growers report equally satisfying results with Pyrox. Pyrox is a combined insecticide and fungicide, scientifically prepared to kill bugs, control blights and other diseases, and to stimulate plant growth. Safe, quick,

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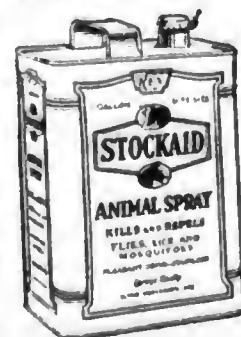
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These foul, contaminating insects are bound to invade your home. Be ready for them. Have FLY-TOX on hand. This pure, clean, fragrant, spray is sure death to the Fearful Seven. There is only one FLY-TOX. Refuse substitutes.



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NESHAMINY GARDENS

By R. P. KESTER

IT is said that the price of farm land has begun to go up on the average. For five years land prices have been going down steadily from the high point of six years ago. This was but a repetition of past history. Everything seems to "undulate" in value, going from high to low and back again from low to high. This is true of land values, interest rates, stock values, wages, etc. The unknown element in the present situation is whether there will be a movement of population back from the city to buy land and take up farming, such as has occurred in the past when slack times occurred? My opinion is that there will not be.

Why does the price of land vary with the changing decades? What sets the value of land anyway? Do the same reasons exist in relation to land as exist in the case of stocks, factories, mines and railroads? Is the price of land gauged by the net profits from it? Or is the value of land enhanced when it is enhanced, by reason of its location with reference to other things? Here is a hypothetical story that will illustrate the question:

John Brown and James White were two young men who bought farms fifty years ago. John Brown bought 150 acres containing some timber, much good farm land and many other natural advantages. James White bought the same number of acres, and obtained identical resources. The farms are located about one hundred miles apart. During the fifty years about the same amount of labor has been expended upon them. Today, they have the same number of acres cleared and contain the same kind of buildings. Each man paid thirty dollars per acre for the bare land. On both farms families of five children were raised. When the two men bought their land one location seemed to be as good as the other. Neither one could be credited at that time of having superior foresight or insight.

But time and circumstances have made a great difference in the value of the two estates. John Brown's land sold recently for two hundred dollars per acre, or thirty thousand dollars. James White's farm would not bring more than five thousand dollars. How was the twenty-five thousand dollars difference made and who made it?

Sometimes you and I lose heart. think we never can be good and true in our living. I have heard one woman say a good many times, "If I only could live right one just one day!" Who of us has felt the tug of a longing like that? And because we fall sometimes are down in the mouth and feel giving it up.

But who of us is so good a farmer that he can always keep the plow in the furrow and never make a mistake? It is a lifelong struggle to win the prize. There is in any line; and yet, a Helper walks always by our side, when we falter. He puts His hand under our arm, and keeps us from falling. If we listen we hear His voice saying, "Fear thou not, for I am with thee!"

And so the white feather at last fades but of the black bird's wing.

have nothing as yet because the farm does not sell at any price.

I bring up this question merely to show that land values are influenced by other things than productive capacity, and that the varying financial success of farmers is not entirely due to varying financial ability.

Now I know that I will hear from some of my single-tax friends, if I have any. They will say that, since the public made the value of the Brown place the increment belongs to the public; that the taxes on a place should have gone up with its rising value and absorbed it. What maybe so. What do you think?

Friendly Talks

By Edgar L. Vincent

YOU cannot breed a white feather out of a black hen's wing.

Take as long as you wish, use every means possible, exercise all the skill and patience you are capable of, still that white feather will show the plumage of the black hen.

We might draw all sorts of encouraging lessons from this fact of nature. You can think of some of them just now. Some of them will be true and susceptible of proof, and others are very far from true.

But it is as true as anything I ever said or thought that there is no man on top of this green earth who may become a good man if he sets about it. A poor farmer may change his ways of working that will be the best tiller of the soil in the neighborhood. The dishonest man may get to be honest. The profane man may stop his swearing and his ways speak words that are clean and pure.

The Dove in the Hen-Hawk's Nest. A man and his wife lived near on the farm. The least said is soonest mended; but they had one of the dearest, sweetest little girls I ever saw. How it came about, only knows that made us all. They used to come to our house once while and always when they were just because they brought that one with them.

Sometimes you and I lose heart. think we never can be good and true in our living. I have heard one woman say a good many times, "If I only could live right one just one day!" Who of us has felt the tug of a longing like that? And because we fall sometimes are down in the mouth and feel giving it up.

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Loss T. B. in Hogs

A 20 per cent decline of tuberculosis in market swine at the large packing centers is shown by Federal meat-inspection records. Eradication of tuberculosis among cattle on the farms where the hogs are raised is the reason for the improved condition of the hogs, officials of the United States Department of Agriculture believe.

More Readers on Farms in Pennsylvania than Any Other Farm Paper

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The Case of Mike Finnegan and Joe Krusniewski

The Agricultural Problem as a Monongahela Valley Farmer Sees It

By WAITMAN DAVID

RECENTLY in reading a life of Mark Hanna I came across an interesting statement concerning the development of the Reclamation Service. It was reported that when that great man in his infancy, President Roosevelt called Mark Hanna to his aid and asked him to help in winning some of the eastern senators that there was such a place as Arizona.

Now in the days of the farm aid legislation would he be out of place to mention to some of the eastern and middle western senators, and the farmers there as well, that there is such a place as Pennsylvania?

In the last several years when "Farm Relief" has been so much discussed the eastern farmer has come in for criticism from his brothers in the West as well as from his industrial representative in Congress.

Seeing the effect of the ups and downs of the large industrial corporations on the demand for farm products, we eastern farmers have never been able to support many of the cure-all schemes that have been advanced.

Where can the correlation between the industrial East and the agricultural West be studied better than here in the Monongahela valley? From the source of the Ohio at Pittsburgh to the end of the West Virginia section is some one hundred and fifty miles in length and extends from the mountains in the east, to the Ohio Valley on the west.

Here we are typical of many eastern river valleys. We have some of the world's largest industrial developments and a population consuming in three to twenty times what the local agriculture produces. Here is demand, and after all said and done the success of agriculture is in direct proportion to the demand for its products. Here times are either good or bad. Why? Well, I ask any superintendent or executive and he will tell you all about the overhead, upkeep of machinery, replacements, etc. He will inform you it is better to shut down than to run at a loss. When business picks up they can be up to their minimum profitable production in a couple of weeks or a month. This is one universal method of big business impossible for farmers to use.

So almost over night the mills and factories may shut down. The mines supplying them shut down. Then the transportation system, of water, lays off a few hundred men.

Glad to Knock You Down

Some of the statisticians will say that practically the same population is found in one of these districts at other times are good or bad; that they have to eat, so they will counter the same amount of farm products. If these theorists would wait a few months in the Monongahela valley they would soon see differently.

Let's follow Mike Finnegan a few months. Mike is a good stocky Irishman about forty years of age. He is a tough steel worker, would as easily knock you down as look at you if you can do it. You can find him any place along the lower river, to his job, scornful of his boss, actually hating the capitalist who directly employs him when he takes time to think about it.

Mike is a hard worker and when he eats he eats in quality as well as

quantity, as do the seven—or is it eight now?—other members of the family. Pork chops they buy by the loin, bread by the dozen loaves and other things in proportion.

"Mike is working hard, the mill is running overtime with orders six to eight months ahead. I know it costs an awful lot to live these times," Mrs. Finnegan will tell you. "But we have a big family and I always like to have plenty whenever we can."

And so while Mike is drawing his ninety to a hundred and forty dollars every two weeks the Finnegan consume in a way that really creates demand. They are good for a two-dollar sale most any time the huckster selling California grapes, Texas tomatoes, Washington apples and Florida oranges calls. The local farmer can sell them four or five dozen eggs a week, a chicken now and then, and maybe a half a hog in the fall.

No Work, No Money, No Butter

Then the mill shuts down. No orders for steel. Follow Mrs. Finnegan to the store after Mike has had a pay some place where he has struck a temporary job. You will hear her say: "Here, Mr. Schmidt, is twenty dollars on the bill. I would like to give you more but Mike only gets three-and-a-half a day working for that contractor, and it costs so much for gas to go way up there in the country to that new road. We have to pay every month on the car or they will take it away from us. Send me up a hundred pounds of flour and a strip of salt side, two pounds of that thirty-cent coffee and a roll of oleo. I don't like that stuff but we can't afford butter."

"Say, Mr. Schmidt, you talk to some of the farmers when they come in and see if you can get me four or five bushels of little potatoes cheap. Maybe I could get some one to trade me a bushel for Bounce. He'd make some farmer a good watch dog. The children like him so well I would hate to see him not treated well but we can't afford to feed him the way times is. I don't know what we would have done the last three months if you

hadn't give us tick. They say after election the mills is going to start up again."

"That's all right," responds the storekeeper. Mike always buys lots and pays good when he has good work. I let you have what you need while I can. But I tell you true I put a mortgage on my building for thirty-five hundred dollars last week. The wholesaler and the produce man want cash and never give me more than thirty days time. You pay me as much as you can."

So much for Mike and demand. Let's look at his brother George who went railroading when he was nineteen. George would never be out of work if he had not lost his rights on the road when he went into the mills for two years during the war to get the high wages. But now when the mills shut down George got furloughed. They laid three crews off the "Branch" because there was not enough coal being shipped to run the trains. Then, too, some of the crews that were laid off on the main line came back on the branch and bumped younger men off their jobs.

Of course George has money in the bank and owns his own property, but he is getting along on the sixty dollars a month he receives looking after a filling station on the Pike and that will close down when winter sets in again.

There is another brother. Hen. He lives on up the river and is a coal loader. You should see a delivery truck pull up to his door about twice a week and unload two or three big baskets each trip when Hen is getting his six or seven wagons a day steady. Then go around after the mine has been shut down three months. Those twenty prize Wyandottes he was buying feed for have all been eaten, save eight he sold to get the girls some shoes so they could get to school.

Hen has but little credit, for when he has no coal standing at the office the store shuts down on him. He just has to get along on what he can make loading two or three wagons a day at a small mine that is shipping spot coal to a pier at Baltimore.

"But still you can make enough to eat if you don't eat too much," is the way Hen expresses it. "They say the big mines and the mills are going to start up in the fall."

But up this valley you will find others besides the Finnegan and the Doughertys. There is a small group of McDonalds, Smiths, Browns and Olsens who buy about the same amount regardless of times. They keep about the same standard always with never a feast nor a famine.

But most of these people spend as they earn, as does the colored population which increased greatly during the last strike period.

And of this vast foreign population let's see how Old Joe affects the demand for agricultural products. Joe came over from some place near Krakow in 1900. He spent seven years laboring around the mills up the Lehigh Valley. Then he moved on west and worked in the hard coal mines where he was married. He came on over the mountains in 1914.

Joe loads his five and six a day when the mines are running, save a day now and then when he stays home to "drink little bit." His wife keeps two to five boarders so they are generally feeding twelve to fourteen. And do they eat? I'd just like to take you over to Joe's some time after pay day when they have a roast "piggy" with trimmings.

(To be continued.)



This fleet belongs to one of the large cooperative egg marketing organizations of the Pacific Coast. The trucks bring the eggs to central points for grading and packing then start them on their way east to top the New York market.

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NO CONTRACTING

IN recent years most of the range lambs and many range cattle have been contracted in advance by feeders. This time both lambs and cattle have lost plenty of money and in consequence very little contracting has been done. Probably more feeder lambs and cattle will go to market the coming fall than for several years. At least there is no rude hurry on the part of feeders to contract them in the range country.

THE GENTLE KILLER

LAST week John A. Mayers of Winslow, Ill., went to the pasture to drive in his cows. As he did not return promptly others went to the pasture, where they found him dead, with evidence of a struggle with his two-year-old bull. The correspondent of the Drovers' Journal who reported this case says: "The bull had not been cross and does not seem cross now after the accident. I saw the bull in the barn and he seemed perfectly quiet for you to go about him." The old, old story of a quiet bull which suddenly becomes a murderer!

PROBLEM SOLVERS

THE editor of a popular magazine is going to help solve the problem of surplus food production by teaching everyone to play golf and using most of the rolling farm land for golf courses. Another problem-solver will have all the hills reforested. A third will give every farmer an airplane and turn the level land into flying fields. Then when barnyards are turned into tennis courts and vegetable gardens into croquet grounds farm relief will be complete. We shall let the Russians grow our wheat and the Argentinians our meat. As for money to pay taxes and buy golf balls and gasoline—well, why worry about a little thing like that?

TO DOCTOR BABCOCK

LAST year Senator Arthur Capper established an annual recognition of some man distinguished for his service to agriculture. The committee has decided that the first award, five thousand dollars and a gold medal, shall go to Dr. Stephen Moulton Babcock of the University of Wisconsin, the discoverer of the method of testing milk known as the Babcock test. This award is creditable to the recipient, the donor and the committee who selected the man to be honored. Dr. Babcock, who as a public servant gave to the public an invention from which he could have

made a fortune, is worthy of the highest honor and of the esteem universally accorded him. Those who provide proper recognition of such men and such service honor themselves in doing so.

WHY FAILURE?

THE United States Department of Commerce has been analyzing the business failures of a group of Philadelphia grocers. Most of the bankrupt retailers kept no records, took no inventory, speculated in real estate, did not use scientific methods. The Department's report reads much like an analysis of farm failures. Apparently there is little difference between the fundamentals of growing beans at wholesale and selling them at retail. Some day we hope the Department of Commerce or some other department will find and publish the reasons for success.

NO INFORMATION

ONE day last week the market reports recorded the "notable steadying effect" of an announcement, credited to the Chairman of the Federal Farm Board, that the Grain Corporation's wheat will not come into the market as long as prices remain at the present low level. Amid the many uncertainties of a slumping market such an announcement should have such an effect. But why should the public have to depend on an occasional utterance of this kind? The Federal Farm Board and its subsidiaries are public bodies, entrusted with extensive powers and large amounts of public money, and they should be compelled to make full and regular statements of their transactions and their policies. In no other way can be avoided the demoralizing effects of doubt, fear and suspicion which arise from lack of information.

PAID TOO MUCH

SEVERAL Australian creamery operators have been fined for paying too much for cream. That sounds rather queer, but it was according to law. For the purpose of improving the quality of butter for exportation Australian law says that all cream must be graded and must be paid for according to grade, the difference between the prices for the several grades being specified. It was proved that the defendants had not paid according to grade, in fact had paid as much for second grade as for first, and they were fined \$5 and costs each. They declared that they could not pay according to law and continue in business but that plea was without avail. Maybe they can find some way to get more of their cream into the first grade.

EDUCATIONAL QUESTIONS

WE are told by the United States Office of Education that rural school disadvantages are a hardship to the farmers of America, and statistics are given to prove it. Perhaps we should not generalize either in assertion or in averaging statistics on so broad a subject. It may be that in some states the term of the rural school is too brief for best results. We do not believe it to be so in the states in which this paper circulates. On the other hand we believe that in many urban schools the term is too long for best results. Is there not in education as elsewhere the possibility of too much of a good thing as well as too little? And are not our educators always striving for more rather than trying to determine the right amount? Why leave education so largely to educators, who of necessity view the problem entirely from their own standpoint?

THE LANCASTER SHOW

IT was unfortunate that the Lancaster Fair Cattle Show was held at a time when the coolers were so full of beef that the president

of the Chicago Livestock Exchange issued an appeal to feeders to withhold shipments to market. For an auction sale follows the Show and the 2,500 fat cattle had to go at money losing prices. The Show brought forward high class of cattle which deserved a better market. The owners voiced no complaint, though their losses were severe. They are the business to stay and they know that good years will come for those who keep on. The Show had a better attendance than last year but not what such an array of prime beef deserved. Lancaster should have had thousands of visitors last week instead of a few hundreds. The commercial organizations of the city should recognize the possibilities of such events and see that they are properly supported and advertised.

MODERN CATTLE THIEVES

OVER three years ago, under the able title, we warned our readers against the gang of swindlers operating in the vicinity of Fairfield, Ia., and discussed their methods of separating the confiding feeder buyer from his cash. At the same time we called to the attention of federal and state authorities the operations of these thieves. A few days ago thirty-five men in that vicinity, some of them said to be leading citizens, were indicted in conspiracy to defraud and false pretense in securing railroad records, that in two years and five months this gang had made over 1,200 shipments amounting to about \$3,000,000, but its operations have been carried on for many years and these figures must represent only a fraction of the totals. We hope that the Iowa authorities can convict all of the guilty ones and give them a chance for an extended period of reflection in a safe place. They have not only swindled hundreds of cattlemen but they have made all buyers wary of dealing with those who advertise stockers and feeders for sale, an injustice to many honest men.

A COTTON CORPORATION

THE Cotton Stabilization Corporation will be inaugurated with the same hopes as the Grain Stabilization Corporation. Both are likely to run much the same course during which the fallacy of the basic plan will be demonstrated by experience. All it will take time, and during that time many claims will be made as to the advantages and disadvantages of such institutions and the acts. Already the Grain Corporation claims that it has prevented a more serious decline in wheat. Nobody can definitely dispute the claim because nobody knows what would have happened if there had been no Grain Corporation. Against its claim of having saved the price are charges that it has mislead producers as to probable prices; that it has eliminated support which the market might have received from domestic and foreign buyers; that it has hung a weight on the market by accumulating a big supply to be disposed of at some uncertain future time and price; that its unknown and probably exaggerated holdings and its secret transactions have created a lack of confidence on the part of business men which has caused them to limit their operations; that it has unsettled the market instead of stabilizing it; and that all this is contrary to the interests of all concerned, including producers. Here again no definite claims can be established, for nobody knows what might have happened if there had been no Grain Corporation. This whole stabilization scheme may be expected to work out in similar attempts have done at other times in other places. Commercial history shows that all such efforts have finally been abandoned because of general recognition of the fact that they resulted in more harm than good.

HERD improvement associations of 32 states have proved 914 sires to the first of this year. This number E. J. Perry, dairy specialist at the New Jersey State College reports that only 112 were living, 622 were dead and no record is given concerning the other 180 animals.

In 1929 these associations proved 279 sires. Only 40 of these are living. One hundred thirty-nine were reported dead, and although no information was given about the remaining 100, it is thought that they also have been slaughtered.

These figures again bring out the fact that dairymen are sending good herd sires to the butcher before they know their true value. Many owners say that they do not want to keep an aged bull in their herd because it becomes dangerous and a menace to human life. Their argument can be answered by the careful handling of such bulls, by the construction of a safety bull pen.

A GROUP of Maryland farmers recently received certificates of merit in recognition of their accomplishments in agriculture. These awards were presented by the University of Maryland on Commencement Day, June 10, to Edgar R. Pennington, Kent county; W. H. Holloway, Worcester county; E. Watkins, Anne Arundel county; and C. Heurich, Montgomery county.

All of these men are outstanding dairymen and have devoted much time and effort toward bettering agricultural conditions in their communities and in the state.

POTATO Field Day, the annual get-together of New Jersey potato growers, was held this week, June 24, at the farm of Jesse Coleman, Lawrence Station. Demonstration of potato machinery and discussion of sprout and disease problems have always made this an event to attract a large group of growers.

ON Monday the Salem - Cumberland Fair-Hill Club Camp opened at Camp Roosevelt on the farm of Jesse Coleman, Woodstown. This is the first year these camps have held a Four-H camp and it is filled to capacity. Camp Roosevelt, a Boy Scout camp, was chartered for four days. Here 69 boys and girls from Salem and Cumberland counties are enjoying four days of camp life and receiving further training in rural leadership. Among the things they are being taught are first aid, leatherwork and rope and harness work. They are also studying useful and harmful birds and insects and practical farm forestry. One of the New Jersey State Troopers spent one day at the camp giving instruction in rules of the road and safety first helps.

NEW JERSEY county and state fairs have announced the dates which they will open as follows:
Hudson Fair..... August 26, 27, 28, 29
Ram County Fair..... August 27, 28, 29
Union Tri-State Fair, Aug. 31, Sept. 1, 2, 3, 4, 5, 6
Garden State Fair..... Sept. 17, 18, 19, 20

WICOMICO county farmers and their families will picnic in the Old Camp Grounds at Parsonburg on June 26. Between 200 and 300 people are expected to take part in the Wicomico County Picnic.

GROUP of about 60 Eastern Shore farmers plan a three-day visit to the New York market next month. They will leave on July 14. Upon arrival in the city the following morning they will visit the Pennsylvania produce terminal, a building covering ten acres where 725 cars of produce are handled daily.

At the Erie piers large shipments of Western fruits will be seen. A trip through the Washington Street Market, the wholesale commission market where much of the Eastern Shore fruits and vegetables are sold, will not only be a colorful

New Jersey Farm Comment

By G. W. HARRIS

event but will be a place worth spending some time and study. Here the growers may learn many things about grades, packages and the demands of the city consumers. It is here that many new and strange fruits and vegetables may be seen. This market supplies the demands of a cosmopolitan group, rich, poor and people of nearly every nationality.

The push cart market in Old Orchard Street in the lower East side of New York offers another interesting marketing scene to the farmer. In this congested section 2,000,000 people living within one square mile buy from push cart owners in the street. Later the visitors will tour the city and go sightseeing by tug boat around New York Harbor.

BURLINGTON county's first auction market for the sale of fruits and vegetables opened on Monday with beans being the principal commodity



The State Dairy Committee which serves as an advisory group on disease control and standardization problems in New Jersey.

offered for sale. This market is being operated by the Beverly Cooperative Growers' Association at Beverly, a successful growers' sales organization which has been in operation for several years. Formerly they shipped direct to New York commission men and this is their first attempt at the auction type of selling.

This organization will continue their former marketing system, giving the farmers the privilege of consigning their produce to New York as in the past, or sending part of it direct and selling part of it at the auction.

NEW JERSEY fruit and vegetable growers should keep in mind the two-day tour of Delaware and Maryland orchards and vegetable growing sections on July 1 and 2.

Among the outstanding points of interest on this trip will be the W. L. Smith Orchards which includes 400 acres of apples, mostly winter varieties, and 50 acres of peaches. A modern cold storage plant at this farm has storage capacity for 70,000 bushels of fruit.

The tour through the Dover section and from there to Ocean City will pass over 2,000 acres of apples and 700 acres of peaches. Harvest of Yellow Transparents will be under way in many of these orchards.

Harris' Nurseries, Inc., at Berlin, Maryland, own and operate over 5,000 acres of land, 1,750 acres of which are planted to commercial peach and apple orchards. Approximately 2,500 acres are devoted to growing nursery stock. An interesting feature at Harris' orchards is a block of 2,000 Elberta peach trees 30 years old with at least 95 per cent of the original trees still standing and producing a crop this year. A heavy crop of practically all varieties of apples will be seen in the Harris orchards.

FIVE New Jersey poultry owners are listed with high scoring White Leghorn flocks during the thirty-seventh week of the Vineland Egg-Laying Contest. The entries of C. W. Brown, Vineland, and Percy B. Niece of Raven Rock each laid 59 eggs to tie with a Pennsylvania flock for second place.

Flocks owned by the Circle Poultry Farm, Mullica Hill, and Stern Brothers, Vineland, are among the five pens tied for third place with scores of 57 eggs for the week. Harold A. Leghans' entry from Beverly took fourth place with a 56-egg score.

Rhode Island Reds from the Woodview Poultry Farm continue to lead all other New Jersey flocks in the Vineland competition. They have laid 1,949 eggs and rank third among all contestants.

NEW JERSEY flocks continued to lead all contestants in the Hunterdon County Egg-Laying Contest at the end of the thirty-seventh week of competition.

White Leghorns owned by Fox and Son Poultry Farm at Little Falls holds the lead with 1,804 eggs. In second place is a flock of Rhode Island Reds from Kerr Chickeries, Frenchtown. These birds have laid 1,709 eggs. Third and fourth places are held by entries from North Carolina and Massachusetts respectively.

ALTHOUGH New Jersey breeders of White Leghorns made a clean sweep during the thirty-seventh week of the Passaic County Egg-Laying Contest by taking all of the five positions on the honor roll of high scorers, the first two positions in total production are held by out of state flocks.

A pen of Rhode Island Reds from the Scott Poultry Farm, Groton, Mass., the present leader in total production has passed the 2,000 egg mark. Another pen of Reds from Parmenter's Red Mount Farm, Franklin, Mass., has laid 1,938 eggs.

A New Jersey flock of White Leghorns owned by Fox and Son Poultry Farm ranks third in total production and is credited with a 1,919-egg score.

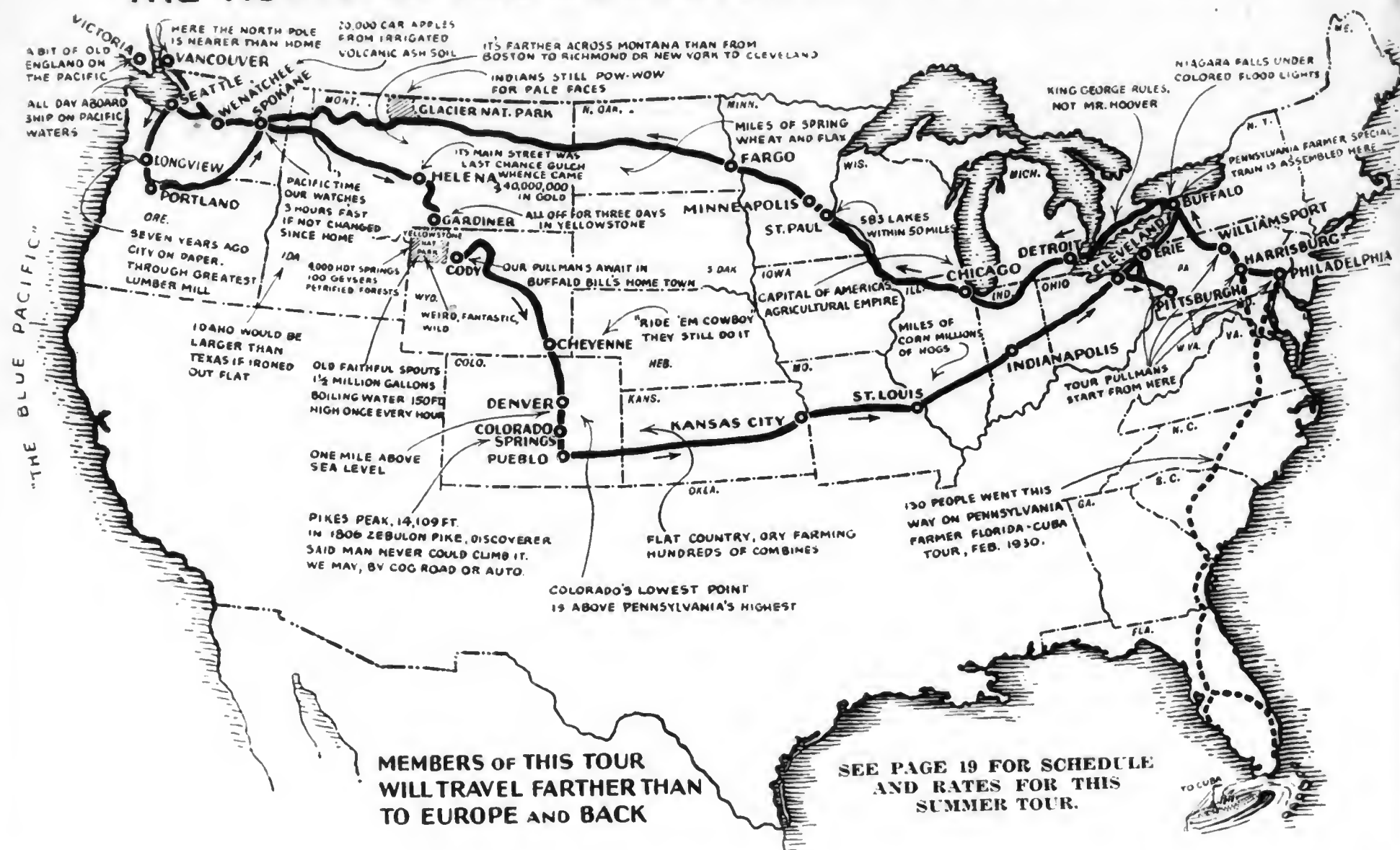
COUNTY Agent Gauntt presents some questions to Hunterdon county farmers to which we all might well give thought and consideration. Upon the answers to these questions he hopes to build the outline for the extension program in Hunterdon county.

He states that the probable cause of farm dissatisfaction is an insufficient income to maintain a satisfactory standard of living. He asks the following questions: What is an adequate standard of living for the farm family of the county? What are the requirements for food, clothing, housing, education, recreation and health, and what will these items cost? What are the more profitable farm enterprises of the county? In what units are such enterprises most profitably operated? What combinations of enterprises and enterprise units have been found most advantageous in the local farm practice of the county? What volume of business is necessary to provide an income large enough to pay farm expenses and leave enough cash to provide an adequate living standard? How is the necessary volume of business to be developed? Should the farm be larger? Should certain enterprises be replaced by others that are more profitable? Should one enterprise be developed more rapidly than others, and if so, in what proportion?

Any farmer who can answer these questions and answer them correctly need no longer fear agricultural depressions and seek further "farm relief." But these questions do present the problems facing nearly every farm family in the country, and are worthy of much thought.

FARMERS in the vicinity of Salisbury, Maryland, are discussing the establishment of an auction block, for the sale of farm products, in that city during the coming summer.

THE ROUTE OF THE PENNSYLVANIA FARMER SPECIAL



WHEN I first sold Woodbine Farm I thought I would sell the other two farms, but after a more careful consideration I decided I would hold them. As long as I am physically and mentally able I want to be kept busy. I do not mean at manual labor, but I do want to have the management of a farm or farms.

One farm of 77 acres is only ten minutes from home. This is stocked with sheep and cattle and when at home I drive to it almost every day. We bring good rich milk from this farm every other day and having an electric refrigerator we can keep it for a week and it does not sour. By the way, I have never spent money for anything that brought us more comfort than the money for this machine.



This farm is a bluegrass farm and it will be our pleasure to make it more productive as the years go by. A neighbor, Mr. Lee Anderson, looks after the stock on this farm and it is a real pleasure to cooperate with him.

The other farm was bought in 1892, containing 450 acres, and is 20 miles from home. When this farm was first bought it took almost a day to go there on horse-back and bring them back at night. This is also a bluegrass farm, but some hay is harvested with which to winter our sheep. No cattle are wintered on this farm and since we make but little hay we buy our cattle in the spring and sell them in the fall.

For 18 years the late G. C. Knavenshute worked for me on Woodbine Farm and on a farm away from my home farm. He was one of the best hired men I ever knew. He died on my farm in early life. He left one son, W. Kent Knavenshute, who for ten years has been the manager of this 420-acre farm. He is like his father, honest, upright and industrious. As long as I own this farm I hope he will be the manager. He owns an adjoining farm but can look after both.

I am glad that it is almost impossible to make a profit from land without the close personal supervision of its owner or operator. If this were not true powerful money syndicates would buy and operate in large tracts. Individual ownership of land would not decline and such a condition of affairs would not tend toward community betterment. Denmark and other countries of Europe are prosperous and their citizens are happy because the farmers own small farms and are able to till them well.

With the conclusion of this chapter this auto-

Story of Woodbine Farm

By W. D. ZINN

(Continued from last week.)

biographical sketch will have ended. Many of my readers have written me that they have greatly enjoyed this story. Since for thirty years I have been doing my best to answer questions pertaining to the growing of crops, the management of livestock and the use of lime and commercial fertilizers my succeeding articles will be given over to a discussion of what we hope our readers will find to be a practical exposition of these subjects. Many readers will not be interested at all in this added discourse and to such we bid a kind farewell. To all those who are desirous of reading further we wish to say that no pains will be spared in our efforts to be helpful. We shall state the facts clearly and accurately as we have observed them and shall offer such suggestions as we have found to be of value on our own farm. I want at once to disclaim any profound technical knowledge of why things come about in this or that way. I know only that certain reliable procedures are followed by fairly definite results. My laboratory (if it may be classed as such) has been the field, the farm yard and the feeding pen. My textbooks have been the soil, the growing crops and the growing animal. And lastly my teacher, though severe at times, nevertheless I can rightly claim as one of the greatest—my teacher has been Experience.

Most Interesting Farm

ONE of the oldest and most interesting farms in the eastern part of our country was discovered on June 7th. These surprisingly agreeable facts, together with invaluable local historical records came to light when the well-known Frank L. Heilmann farm of Cleona, Lebanon county, Pennsylvania, was dedicated by Pomona Grange, the home organization of Patrons of Husbandry. This body has annual dedications. The farm lies at Hill Church, just north of Cleona.

Briefly, these are the facts which are so noteworthy and outstanding. In 1732, John Peter Heilmann, emigrated to America at the age of twenty. He bought and moved on 300 acres in the region now called Hill Church. Since that historic year, Georgia was settled at the same time, 1732-1798 years ago, six generations of Heilmanns have lived

on the farm. However, part of the land was sold off during the two centuries it was in their possession. Russell, the owner's son, manages the farm and represents the seventh generation, and his two sons, Russell and David, the eighth. Can you believe it? All were present at the dedication.

The Heilmann farm was christened "Heilbrunn Farm," after the ancestral village of the Heilmanns' near Wartburg, Germany. "Heilbrunn" means "health spring." Frank L. Heilmann & Son specialize in cattle breeding. John Peter Heilmann, the bold young pioneer, was the leader in erecting the Hill Lutheran Church. He, too, strated the cemetery at this church wherein lie his remains. Robert L. Weigelt

Smut Takes Heavy Toll

ONE out of every ten carloads of wheat received at the Philadelphia and Baltimore terminals from Pennsylvania points during the past six weeks has been reduced in grade and from five to fifteen cents a bushel in value because of smut. These shipments originated in the important wheat growing counties of the southeastern portion of the state, particularly Chester, Delaware, Franklin, Lancaster, Lebanon and York.

Such records indicate the great economic loss which farmers have suffered because of smut, the carlot shipments to the terminal elevators representative of the wheat crop throughout the state, it means that approximately 10,000,000 bushels of smutty wheat have been grown in Pennsylvania during the past five years which, at an average reduction of ten cents a bushel, would mean a loss of approximately \$1,000,000.

The number of carloads of wheat received at the above terminals and the percentage of these carloads which were reduced in value because of smut are as follows:

| Year | Total Carloads | Percentage Smutty |
|------|----------------|-------------------|
| 1924 | 488 | 10.1 |
| 1925 | 510 | 12.4 |
| 1926 | 1,205 | 7.1 |
| 1927 | 992 | 15.1 |
| 1928 | 328 | 12.4 |
| 1929 | 717 | 8.1 |

The small percentage of smutty wheat received from the 1929 crop is particularly encouraging. This reduction is undoubtedly the result of the excellent effort being made throughout the wheat growing sections to control smut by seed treatment. Due to seasonal factors, the amount of smutty wheat has fluctuated greatly from year to year, reaching a peak of 16.4 per cent in 1927. Since 1927, however, the trend has been steadily downward.

Milly Woodbridge's Trek to the Pacific

The Pioneers of the Peace River Valley

By C. A. Stephens

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THERE were marks of a collar on his neck, worn not long previously; and Woodbridge, senior, came to surmise that it was a dog collar from his owner by Indians whom he had decorated on account of ill treatment.

They had plenty of food such as it was, namely, berries, wild meats, milk and a small supply of sugar. There was no bread; and their store of tea and sugar was scanty. On the whole, however, they lived there much more comfortably than one would at first have believed possible. Milly's instincts as a housekeeper kept the little cabin in good order.

Weeks now passed with little in the way of incident, at least nothing exciting, indoors or outside. They were near losing the count of days at times and had long bouts of reckoning up from past dates that were remembered. Occasional snowfalls added to the depth that lay on the ground and correspondingly increased the labor of clearing it off the flats where the Jersey grazed for their daily supply of dry grass. Pinky had fabricated a pair of snowshoes for herself and at length another pair for Winthrop, using for the strips from a kind of tough osier, growing near the waterfall, and for the webs thongs of green elk-hide. They were fairly good shoes; and the bright winter day Winthrop made a trip on his skis to the lake shore for eight or ten miles, to see how far the lake extended to the northward and to ascertain if the outlet left the lake at that point. He satisfied himself that it did, and now they were pretty sure that this lake and stream were the headwaters of the Babine River, a tributary of the Skeena, which enters the Pacific at Prince Rupert. Already they were planning to make an early start when spring opened, and had good hopes of reaching the coast by June. Milly had been pleased for several weeks that her father was steadily improving; he seemed stronger and in better spirits. On pleasant days he walked out along the right-of-way path to the pool below the falls, and drew sticks off in the snow for Mike to retrieve. He went on gaining, they felt sure he would be able to move forward with them by April.

Hopes at once futile and pitiable. Less than a week later the most disheartening blow of all fell on that lonely cabin in the wilderness. Quite suddenly the elder Woodbridge suffered from a hemorrhage so severe and so protracted that he never quite rallied and passed away during the following night.

The subject was so manifestly painful to Milly and Winthrop that I refrained from asking them to tell the particulars. It was evident to me that they blamed themselves excessively for urging their father to undertake the journey. Milly especially. They thought, or at least they feared, that the long journey had caused his death. However, it is quite clear that he was dangerously ill from tuberculosis of the lungs before he started, and it is likely that his malady would have gone on to fatal termination even if he had never left Woodbridge Creek.

LIFE has many painful situations, but probably none more so than the death of a near and dear relative in a remote wilderness where no assistance can be obtained from the outside world to mitigate the melancholy labors of burial. Winthrop and Milly helped somewhat by the squaw, were obliged to dig their father's grave with their own hands, and bury him with none of the usual rites and services that help ameliorate death in Christian lands. It must have been an unspeakably sad experience for them, blaming themselves as they did, for perhaps imagine the stern outward features of the case; the intense cold of January, the deep snow and the hard frozen earth; but the grief and despair of the two youthful mourners would be impossible to depict.

They made the grave just across the frozen pool from the waterfall, at the foot of a large cottonwood, and lined the pit lovingly with green boughs. As all they could do in token of filial affection, they smoothed a fresh spot on the tree and cut the initials, F. W., with the date. That the funeral pyre was laid to his eternal rest, peacefully, it may be, by the ceaseless murmur of the falling waters. Success in life had not been his. He had wandered long and bravely laid down the burden of existence in a far-off, savage wilderness.

It appeared that he had not fully recovered consciousness after the last hemorrhage, not sufficiently to converse or express even a last wish; but after his death they found a little sealed envelope in his pocket-book, containing a lock of his hair, a little "tintype" picture and two double eagles in gold, all carefully folded in half a

sheet of note paper on which he had written the words, "Poor Ruth's hair. She always kept these gold pieces in case of some emergency when we had nothing else to help ourselves with."

The "poor Ruth" thus pathetically mentioned was Milly's and Winthrop's mother whom the little picture showed as a young woman of about thirty.

I was not surprised to learn that the gloom of their father's death rested so heavily on them that for a number of weeks they quite lost interest in the future, nor cared greatly whether they went on from there or not. Fits of remorse for having started fell upon them at times, on Milly in particular.

But youth is naturally buoyant, and properly so. As March approached and certain evidences of approaching spring appeared, the hope and desire of reaching Prince Rupert revived. About the 20th of the month a warm wind began blowing from the West, and during the night the temperature rose so rapidly that more than half the snow melted before ten o'clock the following forenoon. Water stood on the ice of the lake and the little river near their cabin rose in flood, plunging over the cliff into the pool in a roaring, yellow torrent. Such winds from the coast are locally known as "Chinooks;" they are supposed to have some connection with the Kuro-Siwo, or Black Stream; the warm oceanic current that flows across the Pacific from the vicinity of Japan and causes a marked amelioration of the climate all along the west coast of British Columbia and Alaska.

But cold blasts from the north immediately followed this genial breath of the Pacific. Zero weather prevailed again; the water on the lake froze solidly, as did the snow ashore. They had now a two hours' task with ax and shovel to uncover enough sodden grass to appease Brighteyes' hunger. The poor young Jersey was growing thin from lack of proper fodder, but would still caper a bit when let loose from her shed.



The Cheerful Plowman

DESTROYED CONFIDENCE

I'M sorry, Martin Baker, a man I thought as fair, showed up a sort of fakir and not exactly square! You see I sold him carrots some two full years ago and took in trade some parrots and one loud speaking crow! But listen, that dear sinner came back to me and said, "Those carrot paws were thinner than many in my shed, so did we not mis-figure and were you not all off? You thought the weight was lighter," and here he stopped to cough! "I did not weigh them, Baker, I measured them in rough; I'm sorry as a Quaker I did not give enough, but here's two pails, saints bless you, so add these to the rest, take them, don't make me press you! I'm sorry!" I confessed.

He took those extra carrots and went his weary way, while I retained my parrots and petted them all day. But sad am I in telling and sad am I to know that when I thought of selling the parrots and the crow, a parrot-crow physician, a man who knew his birds, said, "Ah, a bum condition!" I trembled at his words. "Your parrots have the glanders and fallen arches, too! They're worth no more than gardeners, they are not worth a soul! And that squaw-crow, sir, has three known kinds of pin, three shoe-balls in a row, sir, and cankers on his lip! Somebody must have read, sir, your bland and trusting face; the fools are not all dead, sir, they still infest the race!"

Well, well, all words are sickly, they can't tell how I felt; my confidence so quickly was struck below the belt! But now, that fellow, Baker, has come to buy some meal; he wants it, gentle fakir, to make his pocket square! And here I go to weigh it, to place it on the scales! Ah, how I hate to say it! I can't forget those pails, those pails of stolen carrots that I was cheated on, also the crow and parrots! My confidence is gone!

J. E. T.

A day or two later Milly and Winthrop set off on the ice with Mike to go down to the foot of the lake again, in order to make sure that the outlet was actually at the north end of it. On his previous trip there, Winthrop had felt pretty certain this was the case; but they wished to be sure, since if the outlet were there, they had no doubt that it was the Babine River and that the best route to Prince Rupert lay in that direction. If not, they knew not what lake they were on, or into what strange wilderness their wanderings had led them. It was fine walking on the ice. If they had had skates, they could have skated for much of the way. On approaching the north end of the lake, they now easily found where a large stream of water left it. Previously there had been ice on the outlet, covered by snow, but now there was a patch of open water where a swift current ran out over shallows. The gap in the wooded hills, too, where the stream made off to westward, was quite apparent.

"This is Babine River all right!" Winthrop exclaimed confidently. "It accords with the maps." "And this we are on Babine Lake," Milly said. "The lake where father died," she added pensively. "We must remember the place. Some time we will come back to mark his grave."

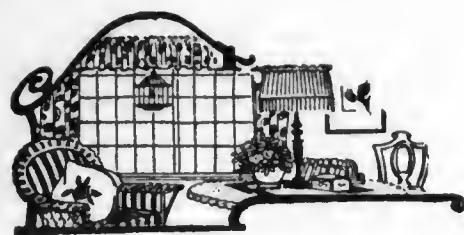
On their return they crossed to the west shore of the lake to examine a remarkably white rock they had often noticed over there from their cabin on the other shore. It was of singular contour and appeared to be pure white feldspar. From that side of the lake there was a grand view across it to the southeast. Far in the distance were several lofty white peaks, which I think likely were Mt. Robson and others at what is now Jasper Park. One of them may have been Mt. Edith Cavell, recently named in honor of the heroic English nurse whom the Germans executed during the World War. The sun had already set behind the shore hills on that side, but its light still shone on the distant white range of the central Rockies.

As they stood looking off, Mike suddenly growled warningly and glancing along the shore, they saw that two wolves had come out on the ice and with heads askance were silently watching them. Not expecting to see game on the frozen lake, Winthrop had not taken the gun. There was little danger of two wolves attacking human beings by daylight; but as there might be others not far off and night was at hand, they judged it prudent to be on their way home to the shelter of their cabin. Mike, too, was evidently of the same mind; he came on behind, growling under his breath, having clearly the worst possible opinion of his lupine cousins.

As they crossed the lake, a distance of from two to three miles, the wolves followed, not directly, but taking a parallel course, keeping a quarter of a mile or more away. They appeared to be scouts, out looking for quarry of some kind. Coming at length where they saw or scented the smoke of the fire, the squaw was keeping in the cabin fireplace, they stopped and after standing still for some time returned rapidly to the woods on the far side of the lake. At no time were they fairly within gunshot; and, indeed, if Winthrop had had his gun, the wolves would not have followed them at all, perhaps would not have issued in sight from the woods. The gray wolf of these wilds is now an exceedingly cunning brute. They know all about guns and generally, when they see that a man is armed with one, will not risk a shot by showing themselves. Winthrop thought it was curiosity about white Mike that had led these wolves to come out on the ice and follow them. Mike himself appeared to think so!

Ever after the Chinook came, the dry grass under the snow had been sodden and bad on account of water that had filtered down to it. Brighteyes no longer found it appetizing food. They discovered that she preferred the little twigs from the tops of the cottonwood trees, numbers of which Winthrop had felled at the time they built their log-house. After drinking mornings, at the hole through the ice on the pool, which Winthrop kept open for her, she went off browsing trigs instead of returning to the plat of dead grass they had uncovered for her. On this hint they now began driving her up to the back of the shore crags, where there were fresh corpses of young cherry, birch and saskatoon. These green shoots Brighteyes seemed to like very much. It was crude fodder; but in the Northwest, when hay fails, farmers sometimes subsidize their young animals on such "browse" for weeks at a stretch.

(To be continued.)



The Farm Home



Let's Not Worry about Clothes for the Trip

Editor's note:—One of the girls of the Pennsylvania Farmer staff recently wrote a little story to try to convince one of her relatives to join the Pennsylvania Farmer Pacific Northwest Tour. It contains so many suggestions for any woman who travels that it is being printed below in part.

MARTHA ADAMS was in tears. Was there no end to the dishes? That's the trouble when all your girls are boys. When did she ever get away for a vacation? Dad and the boys had enjoyed their week of hunting the last ten years. When the last towel was rinsed and hung on the back porch to dry, Martha dropped into the low kitchen rocker and picked up the latest issue of Pennsylvania Farmer with its descriptions of a western tour.

Glacier National Park—pine forests and rocky canyons! Beautiful Columbia River drive; Seattle and a boat ride through the largest locks in the world. A day on an ocean liner—Martha had always wanted to see the Pacific. Hotels—meals on the train; three days in Yellowstone Park—see Old Faithful—the bears—

Footsteps outside startled Martha. Tired eyes lighted as she greeted her nearest neighbor and old friend, Mary Barlow.

"Martha," said Mary, without more than a swift "Hello, there!" "How would you like to take a trip out West with me this summer?"

"Why, Mary, that's just what I've been reading about in the Farmer."

"Of course," replied Mary. "I had forgotten you were a subscriber, too. You've never had a trip; why not go with me?"

"But, Mary, I haven't the clothes for a trip like that. I could never buy all the dresses and hats I needed and have enough left for the trip. Besides, all those people will be city folks and wouldn't have time for a backwoods farmer's wife."

"Now, that's just where you're mistaken, Martha. If you go you'll find nearly all the crowd just common folks like ourselves. And as for your clothes, don't even think about getting anything new. Come on now, let's just sit down here and plan your packing. Suppose we pretend you are going."

A skeptical smile appeared on Martha's face. Nevertheless she settled back in her rocker and gave full attention to her friend.

"We'll start with your dresses since that is the biggest item. There's that dark blue coat and dress you got last spring. Just the thing to travel in. Easy to slip on and off and won't show the dust. Then you have that black and white cotton dress. It won't wrinkle with packing. That's two—now, just one more. One dress on your back and two in your bag are plenty."

"Gracious," gasped Martha. "I can't go on a trip like that with only those old duds."

"Yes, you can," Mary replied. "Don't make the mistake I did on my first trip when I nearly bent double under two suitcases and a traveling bag. I took a different dress for each day. You don't want an extra thing—just the bare necessities."

"Well, then, how about that light tan I got at the sale last month?" suggested Martha.

"No, that won't do at all. You'd be worried to death all the time for fear you got a spot on it. Besides that pleated skirt would be in a fine mess after a day in the suitcase. The old black you've been wearing the last two years will be just right."

"Well," sighed Martha, "it does seem—"

There's a First Time for Everyone

But Mary interrupted, "Now for the undies. Go as far as you like there. Perhaps you will have a chance to send clothes to the laundry and pick them up later but don't count on it. Take five or six complete changes of underwear—some material that won't take up too much space. You must have at least five pairs of stockings. But only the dark shades. I'm sure there will be a chance to rinse them out and hang them to dry in the wash-

room; but take plenty and you won't have to worry. In the Pullman, you know—"

"There," interrupted Martha, "that's another thing—the Pullman. You know I never traveled much. I'd just be the laughing stock of the whole train."

"Fiddlesticks, Martha, probably half the crowd will be in the same boat. But let's get back to the clothes and we'll discuss the train later."

"Dresses, undies, stockings," she enumerated. "What else? Yes, an extra slip. You'll be wearing a dark blue one and should take an extra one."

Now then, over in this corner we'll pack three nighties and keep one out for your handbag. That, with your kimono, will be packed ready for the first night on the train. Slip in your bedroom slippers in the handbag and you'll be ready to pick it up and leave the train for those three days in Yellowstone. When we're away from the train we'll just take our small bags.

"Put some of your handkerchiefs in the suitcase and some in the small one. Take one other pair of comfortable low-heeled shoes to change off. Your toothbrush and little sewing kit won't take up much room in the small bag; along with your comb and any other little toilet things you want. Now everything is packed and you don't have to call in the men folks to sit on the lid to fasten it either."

"As for a coat—wear your medium heavy tweed. Of course it is shabby," reading, the look on Martha's face, "but it is heavy enough to feel good in the higher altitudes we shall visit and you won't have to be fussing all the time about having it put on a hanger. You just can't muss a coat like that. I think we had better take that light sweater, too."

"Hat? Yes, better slip in an old dark felt and wear your blue close-fitting one—the one with a little brim. It will be a great protection for the eyes during the auto and boat trips."

"Now, then, there's the suitcase and bag all packed. After we get to the train you can forget all about it for the porter will immediately take it to your section."

The Porter Won't Expect a Tip

"There's another thing," wailed Martha. "I've heard those porters always expect a dime or quarter or something every time they look at you. Like as not I'd give him too much and he'd know I was a greenhorn, or I'd not give him enough and he wouldn't do a thing for me all the way."

"Now there's just where you're mistaken, Martha. You don't have to worry about tips or meals or anything on this trip. Doesn't the Farmer say that after you pay your final deposit you can leave your pocketbook at home?"

"So it does." And Martha drew a sigh of relief. "I'd forgotten. Now do tell me more about the train for I don't know the least thing about how they make up the beds or what they do with them in the daytime."

"There isn't much to learn. After the first night you will feel like an old experienced traveler. Just keep your eye on some of the others. You and I will have a section—two seats facing each other. They are very comfortable with nice fresh covers every day, or twice a day if you like. At night the porter changes these into two beds—one above the other. They are called upper and lower berths. There is room for four people in a section in the day time, but we shall have one all to ourselves."

"At one end of the car is a washroom for women, at the other end one for men. They have several mirrors, four or five wash basins, dental lavatory, hot and cold water, liquid soap and all the fresh, clean towels you can use."

"How in the world do you climb into the upper berth?"

"The porter brings a short ladder, places it against the berth and up you go. It's almost as easy as walking upstairs. Both berths have mattresses with horsehair pads. Each bed has one or

two blankets and three sheets which completely cover them. There is a complete change every day so you don't need to be afraid of using someone else's. There are two pillows for each berth. There is an electric reading light and hangers for clothes."

"The berths are enclosed with heavy curtains, set for both upper and lower so that they are almost as private as individual rooms. Any time during the day or night just push the electric button."

(Continued on page 19.)

Hints on Pie Making

THERE are only two kinds of pies my husband will eat—hot and cold. Here is a good recipe for pie crust:

Three cups sifted flour, one cup of shortening, one teaspoon salt, cold water to make stiff dough. Add salt to flour before sifting. Add shortening. Use wire potato masher to cut and mix the shortening with the flour. It saves time. Add water little at a time, until dough leaves side of mixing bowl clean. This makes three medium-sized two crust pies.

If your family is small and you need only one pie at a time, try slightly greasing the remaining dough, wrap in wax paper, keep in refrigerator till wanted.

For one crust pies, place dough on inverted pans, prick with fork to prevent air bubbles forming. When crusts are cool, remove from pans, place together, keep in refrigerator. Reheating freshens them.

To prevent sugar from caking under top crust in fruit pies, mix sugar thoroughly with the fruit and the fruit.

Does the juice run out? There are several ways to remedy this. About three tablespoons of flour or cornstarch mixed with the sugar will thicken the juice enough to keep from running. Dampen the edge of lower crust with cold water, before placing on top crust. This prevents crusts from separating. A short piece of macaroni or a piece of paper rolled in a cone shape with small end inserted in slit of top crust will keep juice from running on top of pie.

Are your custard pies soggy? Try baking top crust until the form is barely set before adding filling. Too much sugar in the meringue will cause it to be watery. One tablespoon to each egg white is sufficient. Individual pies made in muffin pans are fine for children's lunch or picnics.

Any leftover dough can be made into jelly rolls which always delight the children. Roll dough thin. Cut out with biscuit cutter. Use narrow strip of dough to form raised ring in center. Bake. When cool, add a bit of bright colored jelly to center of ring.

A Trick in Cooking Steak

INSTEAD of pounding the flour into the steak, try kneading it in, just as if you were kneading it into bread dough. You will find it easier, and quickly done, and the steak will be more juicy when the fibers are completely crushed. A piece of steak can be made to take up nearly a cup of flour. Then fry brown in the usual way or broil into the oven and roast.

Cheese Souffle

Melt two tablespoons butter in sauce pan. Add three tablespoons flour, one-half teaspoon salt, one-eighth teaspoon pepper, one-eighth teaspoon ground mustard, and a few grains of cayenne. Beat to a smooth paste, add one-half cup scalded milk, stirring constantly and one-fourth cup grated cheese. When cheese is melted remove from heat, add the yolks of three eggs and beat three minutes. Fold in the beaten whites of the eggs. Bake in well buttered pan for twenty minutes. Serve at once.

Cheese Knights

Cut stale bread in rounds one-half inch thick. Bring one cup milk to boiling point, add four tablespoons sugar. While boiling pour it over one beaten egg. Dip the rounds of bread in this mixture, dust with snappy cheese grated fine, dip in fine bread crumbs and fry in smoking hot fat. Drain on a low dish with stewed apples, arrange the rounds over them and serve.

L. M. Thornton

Wake-up FOOD— mighty refreshing these warm days!



POST TOASTIES—that's the food to energize you these balmy days of summer. Crisp, toasted flakes of sun-ripe corn—easy to digest, quick to release their refreshing store of energy to the body. Post Toasties is the wake-up food. Send it afloat in cool milk or cream. What a brisk breakfast! How fresh and vigorous for lunch! A wonderful supper "pick-up"! Little folks ask for more and more. Big folks, too. You'll say this brisk wake-up food is delicious—delicious.

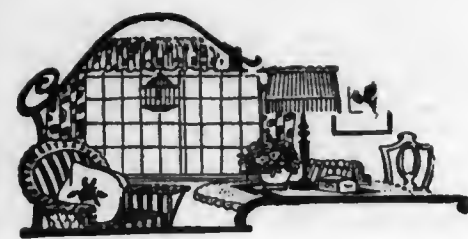


POST TOASTIES

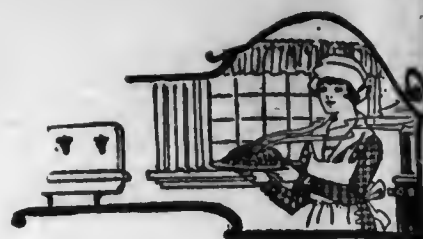
The Wake-up Food

A PRODUCT OF GENERAL FOODS CORPORATION

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The Farm Home



Let's Not Worry about Clothes for the Trip

Editor's note:—One of the girls of the Pennsylvania Farmer staff recently wrote a little story to try to convince one of her relatives to join the Pennsylvania Farmer Pacific Northwest Tour. It contains so many suggestions for any woman who travels that it is being printed below in part.

MARTHA ADAMS was in tears. Was there no end to the dishes? That's the trouble when all your girls are boys. When did she ever get away for a vacation? Dad and the boys had enjoyed their week of hunting the last ten years. When the last towel was rinsed and hung on the back porch to dry, Martha dropped into the low kitchen rocker and picked up the latest issue of Pennsylvania Farmer with its descriptions of a western tour.

Glacier National Park—pine forests and rocky canyons! Beautiful Columbia River drive; Seattle and a boat ride through the largest locks in the world. A day on an ocean liner—Martha had always wanted to see the Pacific. Hotels—meals on the train; three days in Yellowstone Park—see Old Faithful—the bears—

Footsteps outside startled Martha. Tired eyes lighted as she greeted her nearest neighbor and old friend, Mary Barlow.

"Martha," said Mary, without more than a swift "Hello, there!" "How would you like to take a trip out West with me this summer?"

"Why, Mary, that's just what I've been reading about in the Farmer."

"Of course," replied Mary. "I had forgotten you were a subscriber, too. You've never had a trip; why not go with me?"

"But, Mary, I haven't the clothes for a trip like that. I could never buy all the dresses and hats I needed and have enough left for the trip. Besides, all those people will be city folks and wouldn't have time for a backwoods farmer's wife."

"Now, that's just where you're mistaken, Martha. If you go you'll find nearly all the crowd just common folks like ourselves. And as for your clothes, don't even think about getting anything new. Come on now, let's just sit down here and plan your packing. Suppose we pretend you are going."

A skeptical smile appeared on Martha's face. Nevertheless she settled back in her rocker and gave full attention to her friend.

"We'll start with your dresses since that is the biggest item. There's that dark blue coat and dress you got last spring. Just the thing to travel in. Easy to slip on and off and won't show the dust. Then you have that black and white cotton dress. It won't wrinkle with packing. That's two—now, just one more. One dress on your back and two in your bag are plenty."

"Gracious," gasped Martha. "I can't go on a trip like that with only those old duds."

"Yes, you can," Mary replied. "Don't make the mistake I did on my first trip when I nearly bent double under two suitcases and a traveling bag. I took a different dress for each day. You don't want an extra thing—just the bare necessities."

"Well, then, how about that light tan I got at the sale last month?" suggested Martha.

"No, that won't do at all. You'd be worried to death all the time for fear you got a spot on it. Besides that pleated skirt would be in a fine mess after a day in the suitcase. The old black you've been wearing the last two years will be just right."

"Well," sighed Martha, "it does seem—"

There's a First Time for Everyone

But Mary interrupted, "Now for the undies. Go as far as you like there. Perhaps you will have a chance to send clothes to the laundry and pick them up later but don't count on it. Take five or six complete changes of underwear—some material that won't take up too much space. You must have at least five pairs of stockings. But only the dark shades. I'm sure there will be a chance to rinse them out and hang them to dry in the wash-

room; but take plenty and you won't have to worry. In the Pullman, you know—"

"There," interrupted Martha, "that's another thing—the Pullman. You know I never traveled much. I'd just be the laughing stock of the whole train."

"Fiddiesticks, Martha, probably half the crowd will be in the same boat. But let's get back to the clothes and we'll discuss the train later."

"Dresses, undies, stockings," she enumerated. "What else? Yes, an extra slip. You'll be wearing a dark blue one and should take an extra one. Now then, over in this corner we'll pack three nighties and keep one out for your handbag. That, with your kimono, will be packed ready for the first night on the train. Slip in your bedroom slippers in the handbag and you'll be ready to pick it up and leave the train for those three days in Yellowstone. When we're away from the train we'll just take our small bags."

"Put some of your handkerchiefs in the suitcase and some in the small one. Take one other pair of comfortable low-heeled shoes to change off. Your toothbrush and little sewing kit won't take up much room in the small bag; along with your comb and any other little toilet things you want. Now everything is packed and you don't have to call in the men folks to sit on the lid to fasten it either."

"As for a coat—wear your medium heavy tweed. Of course it is shabby," reading, the look on Martha's face, "but it is heavy enough to feel good in the higher altitudes we shall visit and you won't have to be fussing all the time about having it put on a hanger. You just can't muss a coat like that. I think we had better take that light sweater, too."

"Hat? Yes, better slip in an old dark felt and wear your blue close-fitting one—the one with a little brim. It will be a great protection for the eyes during the auto and boat trips."

"Now, then, there's the suitcase and bag all packed. After we get to the train you can forget all about it for the porter will immediately take it to your section."

The Porter Won't Expect a Tip

"There's another thing," wailed Martha. "I've heard those porters always expect a dime or quarter or something every time they look at you. Like as not I'd give him too much and he'd know I was a greenhorn, or I'd not give him enough and he wouldn't do a thing for me all the way."

"Now there's just where you're mistaken, Martha. You don't have to worry about tips or meals or anything on this trip. Doesn't the Farmer say that after you pay your final deposit you can leave your pocketbook at home?"

"So it does." And Martha drew a sigh of relief. "I'd forgotten. Now do tell me more about the train for I don't know the least thing about how they make up the beds or what they do with them in the daytime."

"There isn't much to learn. After the first night you will feel like an old experienced traveler. Just keep your eye on some of the others. You and I will have a section—two seats facing each other. They are very comfortable with nice fresh covers every day, or twice a day if you like. At night the porter changes these into two beds—one above the other. They are called upper and lower berths. There is room for four people in a section in the day time, but we shall have one all to ourselves."

"At one end of the car is a washroom for women, at the other end one for men. They have several mirrors, four or five wash basins, dental lavatory, hot and cold water, liquid soap and all the fresh, clean towels you can use."

"How in the world do you climb into the upper berth?"

"The porter brings a short ladder, places it against the berth and up you go. It's almost as easy as walking upstairs. Both berths have mattresses with horsehair pads. Each bed has one or

two blankets and three sheets which completely cover them. There is a complete change every day so you don't need to be afraid of using some one else's. There are two pillows for each berth. There is an electric reading light and hangers for clothes."

"The berths are enclosed with heavy curtains, set for both upper and lower so that they are as most as private as individual rooms. Any time during the day or night just push the electric button."

(Continued on page 19.)

Hints on Pie Making

THERE are only two kinds of pies my husband will eat—hot and cold. Here is a good recipe for pie crust:

Three cups sifted flour, one cup of shortening, one teaspoon salt, cold water to make stiff dough. Add salt to flour before sifting. Add shortening. Use wire potato masher to cut and mix the shortening with the flour. It saves time. Add water little at a time, until dough leaves side of mixing bowl clean. This makes three medium-sized pie crusts.

If your family is small and you need only one pie at a time, try slightly greasing the remaining dough, wrap in wax paper, keep in refrigerator till wanted.

For one crust pies, place dough on inverted pans, prick with fork to prevent air bubbles forming. When crusts are cool, remove from pans, press together, keep in refrigerator. Reheating from cold.

To prevent sugar from caking under top crust in fruit pies, mix sugar thoroughly with the fruit and the fruit.

Does the juice run out? There are several ways to remedy this. About three tablespoons of flour or cornstarch mixed with the sugar will thicken the juice enough to keep from running. Damp the edge of lower crust with cold water, before placing on top crust. This prevents crusts from separating. A short piece of macaroni or a piece of paper rolled in a cone shape with small end inserted in slit of top crust will keep juice from running on top of pie.

Are your custard pies soggy? Try baking the crust until the form is barely set before adding filling. Too much sugar in the meringue will cause it to be watery. One tablespoon to each egg white is sufficient. Individual pies made in muffin pans are fine for children's lunch or picnics.

Any leftover dough can be made into jelly roll which always delight the children. Roll dough thin. Cut out with biscuit cutter. Use narrow strip of dough to form raised ring in center. Bake. When cool, add a bit of bright colored jelly to center of ring.

A Trick in Cooking Steak

INSTEAD of pounding the flour into the steak, try kneading it in, just as if you were kneading it into bread dough. You will find it easier, and quickly done, and the steak will be more juicy when the fibers are completely crushed. A piece of steak can be made to take up nearly a cup of flour. Then fry brown in the usual way or broil into the oven and roast.

Cheese Souffle

Melt two tablespoons butter in sauce pan. Add three tablespoons flour, one-half teaspoon salt, one-eighth teaspoon pepper, one-eighth teaspoon ground mustard, and a few grains of cayenne. Stir to a smooth paste, add one-half cup scalded milk, stirring constantly and one-fourth cup grated cheese. When cheese is melted remove from fire, add the yolks of three eggs and beat three minutes. Fold in the beaten whites of the eggs and bake in well buttered pan for twenty minutes. Serve at once.

Cheese Knights

Cut stale bread in rounds one-half inch thick. Bring one cup milk to boiling point, add four tablespoons sugar. While boiling pour it over one well beaten egg. Dip the rounds of bread in this mixture, dust with snappy cheese grated fine, dip in fine bread crumbs and fry in smoking hot fat. Drain on a low dish with stewed apples, arrange the rounds over them and serve.

L. M. Thornton

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POST TOASTIES

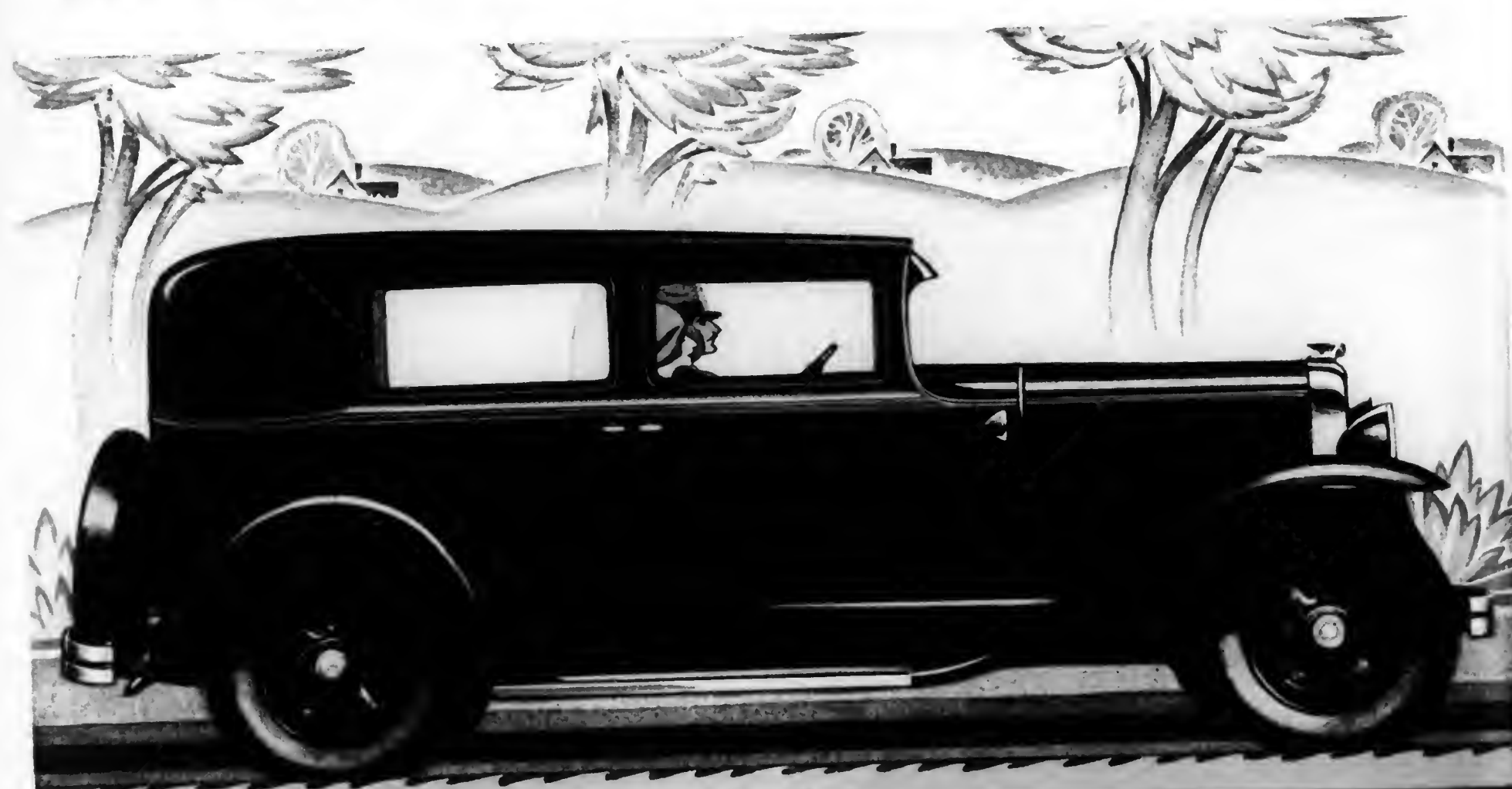
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*A safer, more comfortable
car to drive, an economical car to own*



PONTIAC BIG SIX

Product of General Motors

The 4-Door Sedan, Body by Fisher

For the modern farm family, in which a car often serves many masters, the New Series Pontiac Big Six is especially practical. Its sturdy durability is splendidly equal to the strain of steady employment. And mother or sister can drive it with as much safety and comfort as any masculine member of the household.

It has big, powerful brakes which answer the easiest pedal pressure and bring the car to a quick, smooth stop. It has a new roller bearing steering system to provide that added facility of handling so convenient when driving in traffic and parking. A gracefully sloping windshield gives maximum vision and deflects headlight glare. Fully adjustable front seats and deeply upholstered, form-fitting cushions are also important factors of its comfort. There are rubber cups on clutch and brake pedals to keep out dust and draughts, and improved Lovejoy Hydraulic Shock Absorbers to afford increased riding ease.

Write for an interesting booklet which illustrates and describes the design of the New Series Pontiac Big Six with its important improvements.

Such features mean more than ever when you consider the economy of the New Series Pontiac Big Six. Its big 60-horsepower engine—the largest in any six of its price—provides great power, speed and acceleration with low fuel consumption. Its moderate speed engine reduces friction and wear of moving parts to a minimum with the result that maintenance cost is lowered and longer life assured.

Call at an Oakland-Pontiac salesroom and talk with the dealer about this car. Let him show you its new bodies by Fisher. Examine the genuine mohair of their trimly tailored interiors. Then try Pontiac in a good stiff road test. It will be easy to decide in Pontiac's favor when you see it perform and know the fine all-round value of this low priced six. Seven body types. All prices f.o.b. Pontiac, Michigan, plus delivery charges. Oakland Motor Car Co.

Remember... you can buy a Pontiac on special G. M. A. C. terms offered to farm buyers exclusively with payments at convenient intervals during the year.

\$745

A FAMOUS NAME • A FINER CAR AND UP, F. O. B. PONTIAC, MICHIGAN

An actual cash
saving of \$1.06
per day

That's what the McCanna
Farms test showed about

Mobiloil



Photo by Underwood & Underwood

Photo by Underwood & Underwood



"No, sir, she didn't heat up once. Been running steady all day, too. Well, that means lower oil costs, because this Mobiloil lasts longer in the crank-case."

\$1.06 actual cash savings per day through the use of Mobiloil. But wait a moment before we go ahead with the story of how this test worked out. Let's just figure out what it means to get a saving of \$1.06 per day.

We'll say, for example, that you've got a patch of ground that you're going to list into corn. And, barring any trouble with the lister or tractor, you figure it will take about two weeks to get it all in. That makes about twelve working days. If you can actually save \$1.06 every day, well, you would save \$12.72 on that one job alone.

Now let's go a little farther. You have plenty of other jobs for your tractor, too. Figure up a couple of weeks for disking, and some more time for the wheat binder and the thrasher. By the time you figure it up for a year it begins to run into real money. You could almost save enough to pay for the spring seed or buy the winter feed for fattening that bunch of porkers.

It certainly will pay you to look into these savings made possible by the use of Mobiloil. But you've got to have proof that this can actually be done. Let's look over the test.

How the McCanna Farms
test worked out

Maybe you already know something about the

McCanna Farms. They're located near the town of McCanna up in North Dakota and consist of some 8000 acres of land.

Six well known tractors were used. They all did the same work in the same field, each breaking sandy clay and loam, with the same arrangement of gang plows. The idea was to find out which oil gave the biggest savings both in oil and fuel consumption. Running time and fuel and oil used were carefully checked by a tractor expert and the farm superintendent.

Here are the official results:

| COMPETITIVE OIL | MOBILLOIL |
|--|-------------|
| Oil used per 10-hr. day . . . 6.63 qts. | 3.07 qts. |
| Fuel used per 10-hr. day . . . 33.10 gals. | 28.20 gals. |

Mobiloil showed a saving of 53.7% in oil consumed and 14.8% in fuel used.

Comparative costs

| COMPETITIVE OIL | MOBILLOIL |
|---|-----------|
| Fuel (@ 14¢ per gal.) per 10-hr. day . \$4.63 | \$3.95 |
| Oil (competitive @ 72¢ per gal. Mobiloil @ \$1.05 per gal.) per 10-hr. day . . . 1.19 | .81 |
| Total cost of fuel and oil . . . 5.82 | 4.76 |

Total Saving with Mobiloil \$1.06

Now, when you consider your car and truck, it's just common sense to figure that when Mobiloil shows such remarkable results in a tractor test, it must be about the most economical lubricant you could use for any piece of machinery.

Why Mobiloil makes possible
these savings

In Mobiloil, ALL the essential properties of a full duty oil are present and in correct proportion for your tractor engine.

These properties are: (1) OILY CHARACTER—provides moving parts with rich lubrication—and holds down wear; (2) RESISTS HEAT—lasts longer—keeps down oil consumption, and makes for economical use; (3) CONTROLS CARBON—keeps hard carbon deposits from piling up in your cylinders; (4) OXIDATION CONTROL—keeps oil systems from clogging, and valves from sticking and gumming.

Next time you are in town, have your dealer consult the complete Mobiloil Chart, just to check up on the proper grades of Mobiloil to fit your own particular needs—for car, truck and tractor.

Also, have your dealer tell you about the economy and convenience of getting Mobiloil in 55-gallon or 30-gallon drums.

VACUUM OIL COMPANY

61 BROADWAY, NEW YORK CITY
Makers of high quality lubricants for all types of machinery



Getting your Mobiloil in a drum is mighty convenient. Ordinarily you won't have to worry about your oil supply for the rest of the season. You can set it up in the machine shed across a couple of wooden horses or benches where it's handy. A convenient faucet is attached, too.



Mobiloil

THE YOUNG PEOPLE

Let Me Live in the Country

By LUCY WITHEROW

Prize Story

VACATION has begun and we expect to have so much fun this summer that I am going to write a diary to keep track of it.

Park and I are eleven-year-old cousins living on a farm in Path Valley, a lovely place in the mountains of southern Pennsylvania. We are twelve miles from the Lincoln Highway, and just a little nearer Pittsburgh than to Philadelphia.

The day after school closed we fixed up a tadpole pond. When a neighbor drained his goldfish pond this spring we gathered up one hundred and seventy-five tadpoles. If you have never seen them develop into frogs you have missed something interesting. You should put one in a fish bowl and watch it. The arms and



legs grow on, the little button mouth grows wider and wider, the flat fish eyes change to pop-eyes, and the tail gets smaller and smaller until it is gone. Our tadpoles are growing, and we expect to have a fine frog chorus before long. We have a nice lot of big bull-frogs now, and I wish you could hear them sing. They can be picked up almost any time.

We have two young kittens and one day last week we christened them. The grown cats had never been christened either, so we decided to do them all at once. We got water from both springs and the creek and mixed it with rain water. My old pet cat, Body-By Fisher, disgraced himself. We had to throw the water after him, and name him on the run. Melting Sugar didn't do much better, but the kittens Orinoco Tapioca and Cypress



Frank Robert Woodruff is this young fellow's name. He was three years old in February. The pony colt is a month old.



Margaret Della Miller and her pig. His playmate is King, the dog.

Fireball, behaved beautifully, and I know their names will last throughout their nine lives. Now if only we can save them from the mange next winter we will have two fine cats. We had such bad luck last winter. Melting Sugar is the only one left of last year's crop and our cat cemetery is nearly full.

There is a place near here that Park and I call "The Limberlost" because it reminds us of the one in Gene Stratton Porter's story. We find the most interesting things there—moths, butterflies, cocoons, wild flowers, mushrooms, turtles, etc. We started a collection of moths last year and had a Royal Walnut, a Luna, a Sphinx and many other kinds. The only trouble is that we hate to kill them and nearly always decide to set them free.

When they clipped the sheep a few days ago we had Pal clipped too. Pal is a big yellow and white Collie that has been our playmate ever since he was a puppy, six years ago. We have all his fur clipped off except the puppy locks under his ears and his bushy tail which we leave on so that he will have a better fly-brush, and when he is finished he looks just like a fox. Every one laughs at him but we don't care—we want him to be comfortable.

Yesterday Pal brought in a groundhog that he had killed. We used artificial respiration to try to bring him back to life, but he had gone to the happy hunting grounds for woodchucks. We each gave Pal two smacks and a good scolding but it is pretty hard to teach him not to kill them when Uncle encourages it. If they all lived I suppose the fields would be so full of their runs that the horses would step in the holes and break their legs, but they are such pretty little animals that we'd like to save them.

One evening last week Uncle told us if we would be at the barn at six o'clock the next morning he would give us a present. We were very curious but could find out nothing except that the present was something living that could be divided. We were there bright and early next morning, and he

gave us each a two-months-old pig. They were pretty heavy but we carried the little squealers down to the pen, and are going to feed them well, and see how big we can make them grow until next fall, when we will sell them, and we are hoping for good pork prices. We call them William and Lillian.

We brought in some laurel and a mossassin flower from the woods yesterday to plant near the house, and a box turtle for our turtle collection. We have trailing arbutus, hepatica, colts foot, blood root and other wild flowers growing. We use the juice of the blood root for Indian war paint.

We find that the birds like weather-beaten boxes better than freshly-painted ones. Park made a number

of houses of discarded roofing paper which had been used a long time, and they are the birds' favorite boxes. He always tries to make them cat-proof by hanging them on wire. Our cats are good ones, but I wouldn't trust any cat with a nest of little birds.

I hope all of you can enjoy the country this summer. Maybe I'll like the city when I grow up, but just now I can't think of any thing better than to be eleven years old and to live in the country in June.

Editor's note.—Let's hear from some more readers about their summer vacations. Prizes for all letters printed.

Send your letter to Young People's Editor, Pennsylvania Farmer, 7301 Penn Ave., Pittsburgh, Pa.

Little Folks' Corner

Clara Visits Grandmother

By AUNT BELLE

"MOTHER, may I wear my new dress?" asked Clara.

"Yes, dear, but be sure to take an old one to wear while you are helping Uncle to milk," answered her mother, with a wink at Grandmother, who sat looking on.

Clara was ten and she was going home with Grandmother for a week. Grandmother lived on a farm and Clara always had such glorious times while there. There were so many interesting things in the country, and besides they were going to drive Grandmother's nice old horse, and Clara liked that much better than riding in her daddy's car, for she could enjoy the beautiful country so much better. The car whizzed past things so fast one scarcely got a glimpse of them, and Clara wanted to watch the pretty little brook as it gurgled along, while Grandmother allowed old Ned to take a cool drink. Sometimes there was a pretty squirrel frisking about among the trees.

After a pleasant drive they reached home, and Clara jumped from the buggy and ran to the barn in search of Grandfather and Uncle Don, while



This is Grandma Donahoe of Pennsylvania and her grandchildren. Ruth is in her arms; the two in the middle are Sarah and Ruth Armstrong, while Wilda and Velma are in the front.

the hired man put old Ned into his stall, and Grandmother went into the house to prepare supper.

"Hello, Clara!" said Uncle Don, as his little niece suddenly appeared in the doorway. Then Grandfather gave her a real bear hug.

"Are you going to milk the cows," asked Clara, as Uncle Don left the barn.

"Yes, but I don't believe you can milk a cow," said he, with a merry twinkle in his eye.

"Yes, I can," said Clara, "you just wait until I get my old dress on."

"Gracious, that supper smells good," said she, as she went into the house. "I'm going to help milk the cows, Grandmother."

Grandmother smiled kindly at her as she ran out to the stable. "Uncle Don, which cow shall I milk?"

"I think you may feed the calf instead," replied her uncle. So he gave her a pail of milk and told her to hold on real tight while the calf drank.

(To be continued.)

PRIZE WINNERS

Coloring Japanese Lady

Charles Ernst, Emily Chafey Longstreet, Helen Yetter, Virginia Mae Resler, Lull May Miller, Alice Miller, Flett, L. B. Birtle, L. Birtle, Charles Green, C. C. Christmas, Mary McCall.

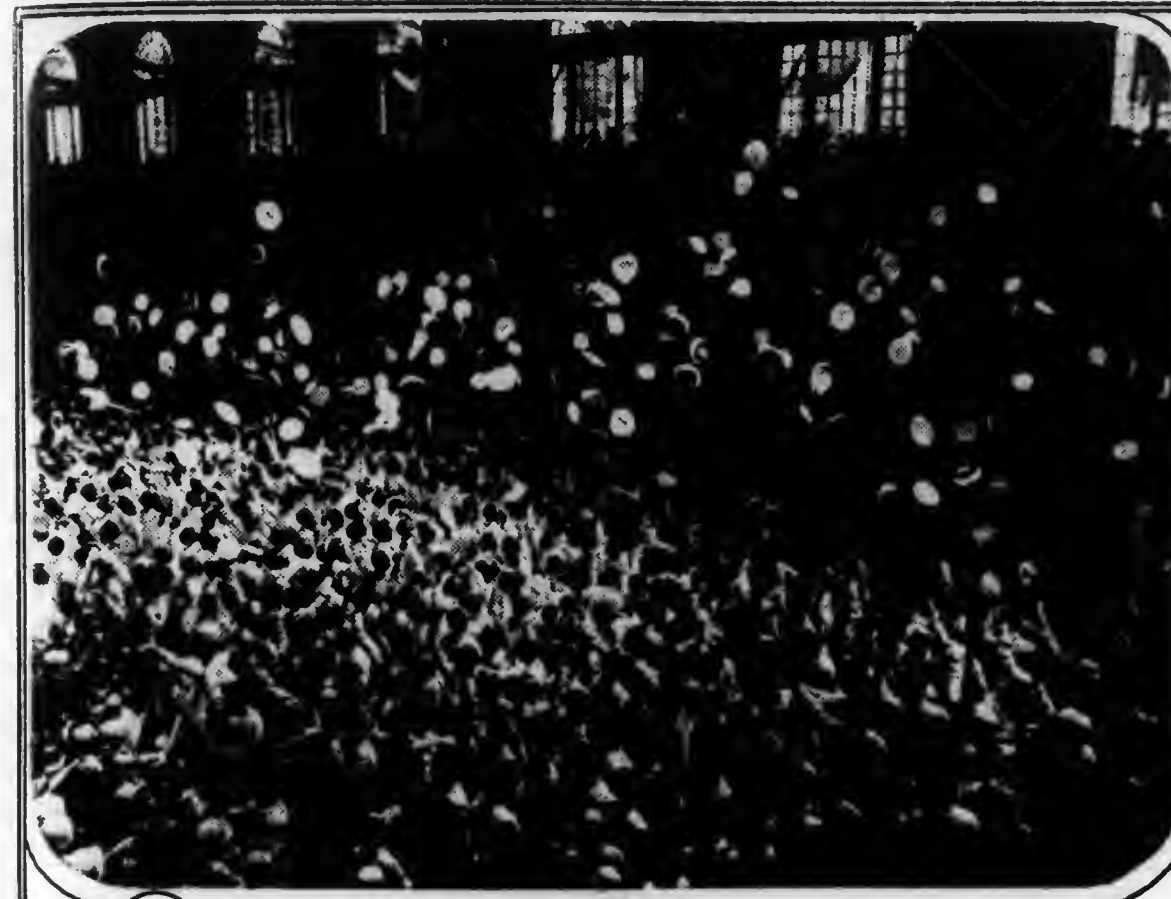
Drawing Cow

Rosanna Dilling, Martha Smith, F. W. Welke, Clara Forter, Marie M. Latty, Irene M. Riggelman, Donald Whitsett, Jacob Kesatie, Samuel Foster, Lorraine E. Barnett, Sallie Barnett, Mildred Rose, M. C. Ciccone.

Story of Sunbonet Girl

Eleanor Steele, Irah Dennis, Garvin Flaherty, Mary Ann, Agnes Gross, Ruth Brown, Grace Weyand, Iva Smedeker, Anna Ceb, Dorothy Packard.

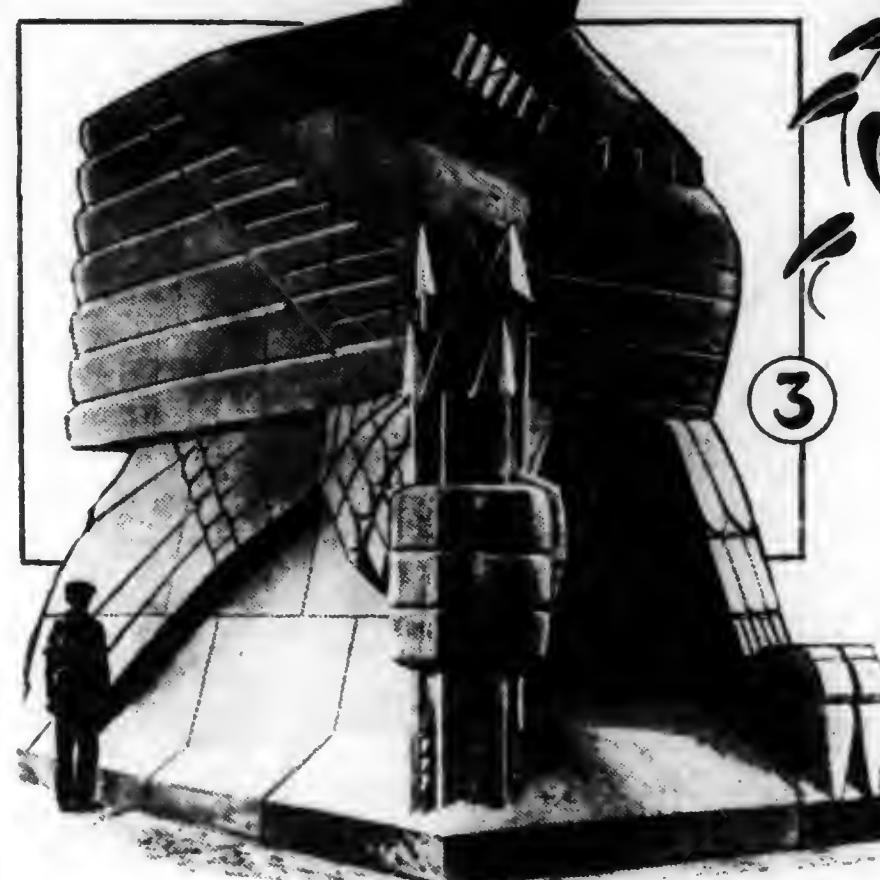
PASSING EVENTS IN PICTURES



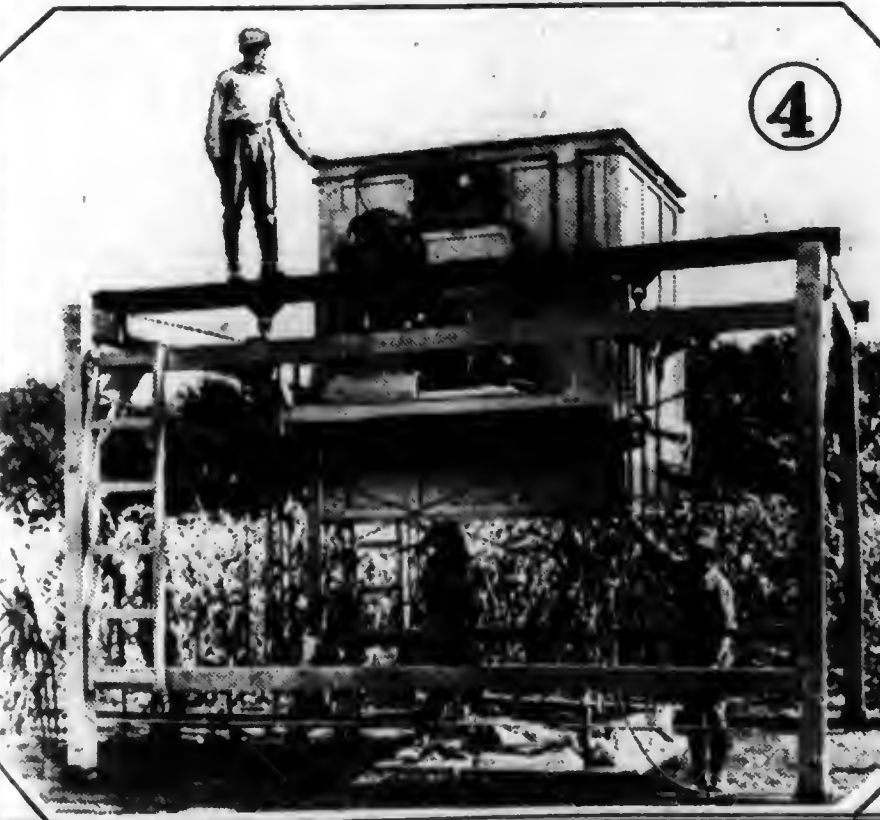
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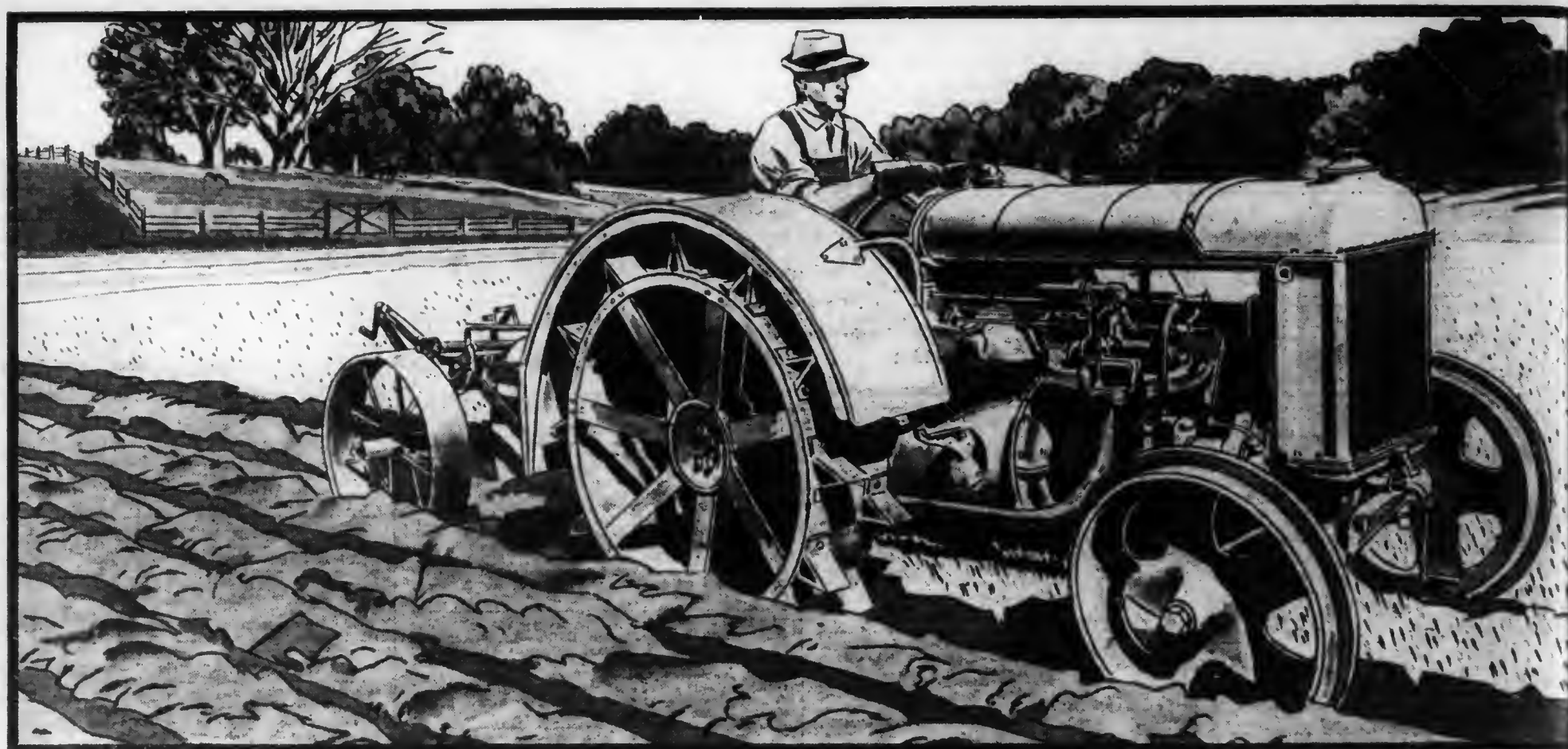
1. Goodbye caps! Here are 400 newly commissioned ensigns tossing away their midshipmen's caps at the end of graduation exercises at the U. S. Naval Academy, Annapolis, Md.

2. The Turks like her. Five-year-old Baby Fatma hails from Rodosto on the Sea of Marmora. She is Turkey's most popular movie star.

3. You will see this bird guarding the new Soldiers' and Sailors' Memorial Bridge which leads across the railroad tracks to the State Capitol at Harrisburg. It is one of a pair of 200-ton limestone eagles, 22 feet high.

4. Freezing corn in August. U. S. Department of Agriculture experimenters lower this portable electric refrigerator over hills of growing corn to learn which varieties can survive a sudden fall freeze.

5. A rip-snorter in action. This remarkable picture shows a Nebraska tornado in the act of destroying the homes of several hundred people.



Each task seems easier . . . costs less . . . with a **FORDSON**

TAKE plowing, for instance. With a Fordson Agricultural Tractor, you can make the most of those ideal plowing days that are all too rare . . . when the soil is neither too wet nor too dry to turn best.

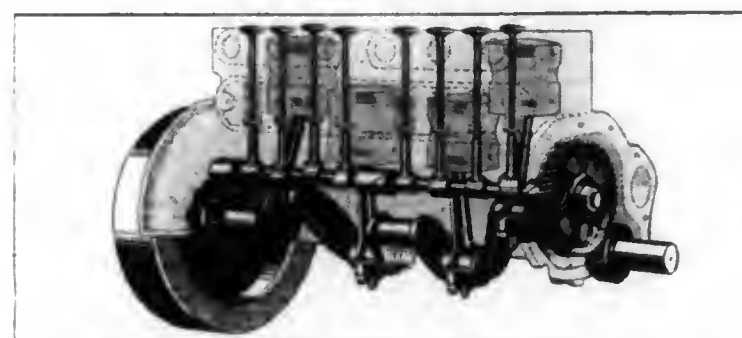
You'll appreciate your Fordson for the multitude of other jobs, where it helps speed up the work, makes it possible to start and finish at the *right time*.

Ample power . . . power you can depend on . . . is one feature of the Fordson Tractor. With a 4-cylinder engine, which develops 30 belt horse-power at 1100 r.p.m., the Fordson will plow at $3\frac{1}{4}$ miles an hour with a two-bottom, 14-inch plow.

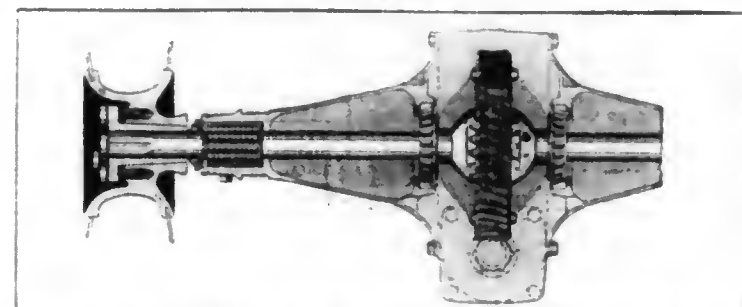
Another feature is the ignition-system, which uses a high-tension magneto equipped with an impulse-starter coupling. This improvement greatly facilitates starting, and eliminates all danger of the engine's kicking back when it is cranked.

Another is the extra weight in the front end, resulting from new, heavier front wheels. Others are the new centrifugal pump in the cooling system; new lubrication-system which has a large oil-filter screen in the crankcase; air-washer, which has been enlarged to ample capacity for a full day's running; redesigned transmission; improved gasoline carburetor; hot-spot manifold; sixteen-plate transmission-brake; heavy fenders; steel steering-wheel, hard-rubber covered; shock-absorbing front coil-spring; and crankcase ventilation.

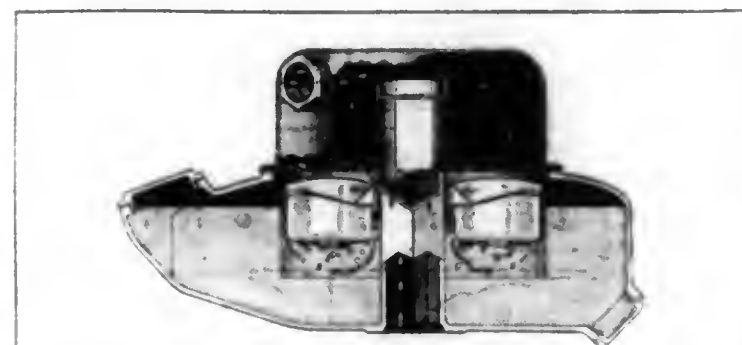
You will find the improved Fordson ideally adapted to all farm jobs. Your Fordson dealer will gladly arrange a demonstration.



Rugged construction throughout characterizes the Fordson Tractor engine. Pistons and connecting-rods are weighed and matched in sets to give perfect balance.



The rear axle is designed for heavy duty. It is equipped throughout with large roller bearings, adding to its life and reducing friction.



The capacity of the air-washer has been increased from 7 to 17 quarts of water. This additional capacity gives more satisfactory operation, and makes refilling much less frequent.

F O R D M O T O R C O M P A N Y

G. M. STULL CO., CHESTER, PA.

**End of
Volume**